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CLINICAL MEDICINE

Vol. 31, No. 11 NOVEMBER, 1924

Just 'round the Corner

JUST 'round the corner may wait Wealth and Fame,
Beyond another, Woe, Defeat and Shame.
Fate shakes the dice; from her Pandora's box
Fall, 'round the corners, blessings and hard knocks!

EVER Adventure 'round the corner lies;
Man turns it hopeful—seeking for a prize;
Each day's experience, tho' barren at the best,
Leaves him still sanguine, keen for further quest.

THANK God for Corners on the road we tread,
Sparing full view of that which lies ahead,
For the LAST corner turned, King, Plutocrat and Slave
See but the straight short pathway downward to the GRAVE!

C. H. C.

November, 1924

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DR. GEORGE B. LAKE

THE NEW MANAGING EDITOR OF CLINICAL MEDICINE

CLINICAL MEDICINE

Dependable Therapeutic Fact for Daily Use

Vol 31, No. 11 November, 1924

Our New Editor—Dr. George B. Lake

FOR some months, following the resignation of Doctor Achard to assume new editorial duties in the happier clime of California, CLINICAL MEDICINE has been without a managing editor. With the assistance of Doctor Achard, Doctor Blech, and other members of the editorial staff (not the least of whom is Miss Mabel Swanson, upon whose shoulders has fallen a large share of the burden), we have gotten along nicely, although the difficulties at times have been considerable. In the meantime, we have been looking for the right man for the editor's chair—for one who could carry forward, with honor to himself and the journal, the work so splendidly developed by Doctor Achard. At last we think we have found him, in the person of Dr. George B. Lake, whose picture you will see on the facing page.

Doctor Lake is already known to many of our readers, particularly to those who served in the Medical Corps during the World War. He was camp surgeon, with the rank of Lieutenant Colonel, at Camp Grant from June, 1918, to April, 1919, and in command of General Hospital No. 25 at Ft. Benjamin Harrison, Indiana, from May to August, 1919. He entered the Regular Army in 1910, and has been continuously in the military service of the United States until his resignation to become editor of CLINICAL MEDICINE. At this time he is camp surgeon, with the rank of Major, at Camp Alfred Vail, Oceanport, N. J.

Doctor Lake was educated at Wheaton Academy, Wheaton, Ill., at the University of Michigan, and at Rush Medical College, where he graduated with the degree of Doctor of Medicine in 1902. He worked his way through both academy and college. Immediately after graduation, he entered the service of the Mexican Central Railway as assistant surgeon, holding this position from July, 1902, to April, 1904. He was stationed at Aguascaleintes, Jimulco and Silao. He was in civil practice at Wolcottville, Ind., from 1904 to 1910, during which period he was town health officer, from 1907 to 1909, Special Lecturer in Rural Hygiene and Sanitation at Purdue University, and lecturer at the Indiana State School for Health Officers, 1908 to 1910.

He was commissioned a First Lieutenant in the U. S. Army July 7, 1910. His Army service has been strenuous, and withal interesting. For three years he was stationed in the Philippines, and took part in the campaign against the hostile Moros in 1913, where he participated, under the command of General Pershing, in the campaign at Mt. Tailpao. He was

with the 11th Cavalry and in the special squadron under Major Howse during the Mexican Punitive Expedition, April, 1916. He did not succeed in getting to France, to his great regret, but performed invaluable service for our country at vitally important stations at home. It is manifestly impossible to give here many of the details of his military career.

I have known Major Lake for nearly twenty years. He was for some time a frequent and thoughtful contributor to the pages of CLINICAL MEDICINE, and has made many other contributions to medical literature. I was naturally attracted to him on account of his earnestness, sincerity and his well-rounded ability as a physician and also because he has always been a firm friend of our journal and a supporter of the therapeutic ideas with which it is identified. He comes to CLINICAL MEDICINE, therefore, not as a stranger but as one who knows and understands what we are trying to do and is prepared to put into his task the very best that is in him.

I hope that every reader of CLINICAL MEDICINE will feel that he has a personal invitation to write often to Doctor Lake and to cooperate with him and with us in making the journal better than ever before. Greetings to the new Managing Editor! Doctor Lake will assume his editorial duties beginning with the December number.

ALFRED S. BURDICK.

Choose always the way that seems the best, however rough it may be. Custom will render it easy and agreeable.—Pythagoras.

THE INFLUENCE OF DIET

When, in 1850, Ludwig Feuerbach announced a popular treatise on dietetics, by Moleschott, he employed the phrase, that since has become famous:

Der Mensch ist was er isst.[1]

Possibly, the sentiment would not have attracted so much attention but for the word-play which can not be reproduced in English. Still, the same opinion had been expressed by Brilliat-Savarin, in his *"Physiologie du gout"* (1825):

Dis-moi ce que tu manges, je te dirai ce que tu es.[2]

Moreover, we find that Paracelsus voiced a very similar idea, though not quite so materialistically, in his "Opus Paramirum" (Basel, 1589. I. 117). The assertion, especially in Feuerbach's phrase, was fiercely disputed and characterized as irreligious, and worse. Henry Ward Beecher is said to have commented upon it rather cleverly, if not quite grammatically, by declaring: "When I eat chicken, I do not become chicken, the chicken becomes me." And, yet, the influence of diet upon both body and mind is indisputable; that is the opinion recently expressed by Dr. J. A. Stucky, of Lexington, Kentucky (*Laryngosc.* Aug. 1924). Said he, "Undoubtedly, our bodies are the products of the food we eat. Our mental or psychic impressions are largely what they are because of our physical conditions, so that they are also based upon the food we eat." We know that, as long as we can control the child's food, adapting it to its power of digestion, absorption, assimilation and elimination, it will grow and flourish; but, the food must be as delicately balanced as is the child's corporeal system."

If then, continues Doctor Stucky, children thrive on natural foods and keep well, it may be asked at what time in their progress toward old age they will fail to keep well feeding upon natural foods. That question can not be answered, for the simple reason that it is rare to see an individual living on natural foods in this day of preserved and artificially prepared articles. The trouble is, that most of the foodstuffs have certain vitally essential elements removed in their processing for the market and the grocer's shelves, the actual reason being that, otherwise, the food would not keep readily. The actual injurious nature of these processed foods has been demonstrated by men like McGarrison, McCollum, Osborne and others, who produced in their experiment animals every known disease of the human gastrointestinal tract, also disease in every organ of the body, even to the thyroid and pituitary glands, by feeding animals with the artificially refined foods of civilized mankind; then the animals were cured by being fed with the waste products of civilized human food industries—rice polishings and wheat bran.

Experimentation and observation have shown that the protective foods are the natural whole grain, milk, eggs, roots, greens, nuts and fruits used as soon as may be after cooking or not cooked at all. The most important of these are milk, vegetables, leafy salads and fruit. However, the normal ration is not afforded if it contains only protein, carbohydrates, fats, water and vitamines, however essential all these substances are as building stones for the normal organism. Two

[1] Man is what he eats.
[2] Tell me what you eat, and I will tell you what you are.

other very important factors must enter into the normal dietary, namely, mineral salts and cellulose, or waste (roughage). Of the mineral salts, those having an excess or basic element must predominate.

Such mineral salts and roughage, Dr. Stucky reminds us, are supplied in normal amounts by the whole grains, leafy vegetables and fruits. When these foods are used freely enough, the physician need not concern himself about vitamines, since they are provided in abundance by these natural foodstuffs if the latter are almost or quite fresh. Any suspected deficiency, from lack of freshness, for instance, may be made good by the addition of milk, eggs and butter.

An interesting and highly important observation was recently reported by Clarge, of the University of Georgia, to the effect that the excessive proliferation of lymphoid tissue, as seen in enlarged tonsils, adenoids and in Peyer's patches, can be produced at will by feeding cats a diet high in fat and in calories. It was thus established that the lymphoid tissue in the bucco-pharyngeal cavity and the intestines is regulated by the calorie and the fat content of the diet. This factor, Doctor Stucky found, afforded an explanation for the great frequency of enlarged tonsils and adenoids among the Kentucky mountain people; it also will indicate one proper procedure in the treatment of these conditions. In fact, Stucky asserts that "many ophthalmological and otolaryngological diseases are local manifestations of a systemic disorder, the chief factor being in the intestinal canal. The increasing number of functional and organic disturbances due to diseased tonsils and adenoids, teeth, the large percentage of underweight children, the prevalence of rickets, small jaws and teeth which are irregular, poorly developed and decay easily, with the increasing evidence of endocrine imbalance and dysfunction have become a source of deep anxiety to the medical profession as well as the laity."

It is fully understood that the vicious conditions and circumstances that have arisen in the matter of the food supply of the nation, and nations, are largely to blame for the increasing physical deficiencies. Highly milled cereals, a diet largely composed of potatoes, of cane sugar, of muscled meats, have proved insufficient, in the animal experiment, to maintain a satisfactory state of nutrition, just as they have in the matter of feeding humans.

In processing and "refining" the food supply of the people, two highly important factors have been neglected; namely, the vitamines, or essential food factors, and the mineral salts, the intrinsic character of which has only quite recently come to our consciousness. Both substances are indispensable for the continued development and health of man, and their loss, which is occasioned by the modern processes of food preparation and preservation, already has had deplorable consequences. Concerning the mineral constituent of the food, Stucky says that, in refining the food products, "the salts are greatly disturbed in their relation to other food elements in the grain, which require their presence in order to function as nutrition in the tissues of the body, and, in the proportion in which these salts are removed, the remaining food becomes poison. . . . the bulk of man's food has been refined into poisons by the taking out of some of its vitalizing mineral salts with their always associated growth- and repair-substances. The diet of the average person and rapid eating cause fermentation in the stomach and putrefaction in the intestines resulting in toxemias which range in intensity from ordinary colds to severe acidosis. . . . Moreover:

"In addition to the effect of food on the digestive organs concerned in the relation to the metabolic processes, we have increasing clinical evidence that many ill-defined ocular, oral and nasopharyngeal disorders giving rise to vague ill-health are due to food deficiency. . . ."

"I have obtained most gratifying results in the treatment of tinnitus aurium by relieving the intestinal toxemia, regulating the diet and administering the mixed endocrine glands. These glands interact with the other, the whole forming a well balanced and mutually interdependent system. Any irregularity or disease interfering with the supply of one secretion affects all others in a greater or lesser degree . . . in the absence of a standardized . . . test, our treatment must be based on the clinical evidence."

Stucky also accepts the lithemic, or "rheumatic" diathesis—and innate predisposition to develop certain manifestations . . . and its hereditary transference is secured by the transference of a tendency to protein sensitization. . . . The exciting cause in children is often found in alimentary disturbances, so-called bilious attacks, in adults most commonly overexertion and exposure to cold. To this should be added overeating and drinking. In most of the conditions due to nutritional deficiency, it was found that only minimal amounts of milk, eggs, and butter were utilized as food articles by the people concerned.

The diet consisted largely of fried foods, coffee, pork and occasionally fresh meat. The vegetables were corn, beans, cabbage, turnips, with fruits, raw, dried or preserved.

In clinics attended by persons on such a diet, Stucky found unusually large masses of lymphoid tissues in the throat and destructive changes in nose and ears, such as suppurative mastoiditis requiring extensive operation. Where the operation was followed by proper feeding, adding milk, butter, eggs and cereals to the diet, the entire physical economy was noted to undergo a most marked change; contrariwise, where the change in diet was not made, the result of the surgical treatment for tonsils and adenoids was most unsatisfactory.

Doctor Stucky's most impressive observations were made among the mountain-people in Kentucky, to whom the evil consequences of long continued faulty diet and of other unfavorable circumstances have been demonstrated most convincingly. The observations were of such a nature as to constitute an exact clinical experiment with suitable control and care to avoid erroneous conclusions. There can hardly be a more conclusive demonstration of the results accruing after the use of food products that are deficient in minerals and in vitamines. These results could be literally reversed by a suitable change in diet, affording the proof of the contention that much of existing ill-health is the entirely unnecessary and avoidable product of wrong eating, which is forced upon the public by those whose task it is to supply the people with food.

Enjoy the blessings of this day if God sends them; and the evils bear patiently and sweetly. For this day only is ours; we are dead to yesterday, and we are not born to tomorrow.—Jeremy Taylor.

WHY DO WE GROW OLD?

It is a tedious repetition of an overworked remark to state that the inevitableness of Growing Old interests us today even as it has intrigued our forebears centuries ago. It is asserted, especially by amateur scientists who are innocent of all knowledge of physiology and biology, that, theoretically speaking, man might live on indefinitely, providing that all the requirements necessary to a well-ordered life, such as a well-balanced metabolism, carefully regulated exercise, strict attention to hygiene, the most favorable mental conditions possible, etc., etc., were observed. Others are more modest and content themselves with postulating a "normal' span of life of say, one hundred and fifty years, always conditional upon rigid attention to physiologically correct diet, good digestion, assimilation, elimination; mental attitude undisturbed by emotional storms—in short, a sort of vegetating that would be utterly foreign to us of the twentieth century; that would be quite incompatible with participation in the business and social life in the city, and almost so in the country. In short, to us individually it appears that the sort of life that would be necessary to cheat death for a century or so would be far worse than the passing out itself.

However, different minds, different opinions. It seems that the observation about man being as old as his arteries is fairly exact. Undoubtedly, it is closely associated with the belief that man is as old, or young, as his endocrine glands. At any rate, Dr. F. L. Jackson (*Therap. & Dietet. Age*, Aug., 1924, p. 192) points to the general observation that persons who have passed three-score years and have retained their normal vitality and virility show no evidence of abnormalities in blood pressure or of arteriosclerosis. Dr. Jackson remarks quite logically that there must be some reason for a waning in the functions of the ductless glands. Since the condition of the blood stream is constantly changing, it is quite possible that the quality of the blood nourishing them may have something to do with the lessening of the activity of the ductless glands. Also, the condition of the nervous system is reflected in both the blood and the glands.

"Another source of old age may be the mental condition. We are told that fear causes a contraction of the arteries which lead to the stomach, a dilation of those which lead to the heart, lungs and brain. While I am not able to describe the physiological processes," Doctor Jackson continues, "there is no doubt that similar changes take place as the result of worry, anger, grief, joy, etc., all exerting their own peculiar influences upon the factors in question.

"From childhood to adult life cells accumulate faster than they are used up and the person grows. From adult to middle life, the two processes about balance. But, after middle life, the cells are used faster than they are created or 'grow old' in their places and we begin to decline or grow old.

"Much has been done in the way of controlling preventable diseases, improving the facilities of travel, the comforts of the home life, our methods of living, diet, hygiene,

exercise etc., to restrain body waste which is so characteristic of middle and advanced life, also to prevent the cells from growing old in their places, and as a result, the average span of life has been increased twenty years during the last century."

Dr. Arnold Lorand ("Old Age Deferred") describes old age as a chronic disease due to degeneration of the glands with internal secretions, of the thyroid, the sex glands, and the adrenals in particular. This degeneration, Lorand asserts, is amenable to treatment just as chronic diseases in general are subject to alleviation by appropriate measures. Consequently, we may easily live to an age of ninety or a hundred years instead of dying at sixty or seventy.

We can not but agree with Dr. Jackson's opinion that man is subject to the same natural law as are other growing, functioning and decaying organisms. There is a limit to the development that can be attained and, no less, to the length of time during which an equilibrium can be maintained, from the time when the summit of development has been attained and that when the inevitable decay begins. Actual old age can no more be escaped than death. We may just as well face the fact philosophically and, by growing old gracefully, accomplish the duties devolving upon us in that period of life. These duties, we take it, are as important in their way as were those of our youth, of our adolescence and of our mature years.

Old age with honor and with grace is attractive. A purely vegetative old age is useless and even repulsive. Therefore, we hold, one of the duties of life is to grow old gracefully, to maintain an active interest in life's business and to obey the laws of physiology in order to make possible an attractive old age.

He scatters enjoyment who can enjoy much.—Lavater.

PROBLEMS IN ECLAMPSIA

The fact that puerperal eclampsia causes more deaths in childbirth than any other disease, except sepsis, calls urgently for a continued study of this terrifying accident of the lying-in room, especially since Irving Smiley, of the Bronx Hospital, New York (*Med. Jour. & Rec.*, Sept. 3, 1924, p. 210) assures us that at least eighty percent of all cases can be avoided by a proper study of the prenatal conditions.

The idea prevailing formerly, that eclampsia had its origin in the kidney as the primarily affected organ, has given place to the opinion that a depreciated hepatic function is primary, the kidney disturbance secondary; unless one were to assume two types of eclampsia, the renal and the hepatic.

Another opinion is, that the placenta, which has been shown to produce an internal secretion, is responsible for the intoxication giving rise to the eclamptic explosion. Unfortunately, it has not been possible to determine just how the *modus operandi* would have to be explained. Still, Halban asserts that all material reactions are due to an internal secretion of the placenta. Further, Titus and Givens have tried to prove that, in eclampsia, there seems to be a shortage of carbohydrates in the maternal organism, due to an unusual demand on the part of the growing fetus, with a consequent depletion of glycogen in the liver. However, the whole placental theory is very uncertain and it is impossible to arrive at any definite conclusions.

It is quite a matter of course that the ductless glands should be incriminated in this matter, since especially the thyroid gland acts as a detoxicating agent in the organism and is naturally called upon to bear an increased burden during pregnancy. If the thyroid fails to accommodate itself, either through hypoactivity or through hyperactivity, there follows an unbalancing of the maternal anabolism and catabolism; then a toxic state ensues. Since the thyroid itself seldom plays a lone hand, it is natural to suppose that other glands take part in the process. The effect of the corpus luteum secretion, which is supposed to be stored up in the placenta, is unknown. The pancreas, adrenals, pituitary, etc., share in the pathology and here the glycogenic function of the liver may be disturbed.

From this last viewpoint two types of eclampsia would be recognized: (1) cases with thyroid hypoactivity and an insufficient secretion to take care of the increased metabolism in the liver, and (2) cases associated with Graves' disease, which condition is made distinctly worse by pregnancy. Hyperactivity of the parathyroids, leading to a rapid withdrawal of calcium from the maternal organism, has also been mentioned as a part of the process.

Another theory is to the effect that products of the fetal metabolism, toxic in nature, enter the maternal circulation and there produce the toxic symptoms. Smiley is not greatly

enamored of this theory which fails to account for several contingencies associated with eclampsia.

Finally, according to Titus and Givens, the reserve store of glycogen in the liver is drawn upon, with the result that a depletion in this organ occurs. Pathological changes in the cells result from this depletion and its detoxicating and other normal functions are primarily impaired.

Without entering further into the etiology of eclampsia, Smiley refers to the tremendous amount of labor that has been done in laboratory and research work but without elucidating the problem materially. The most self-evident study is that of the urine which results in abnormal findings in almost ninety percent of the cases. Strangely enough, in the other ten percent, careful examinations of the urine in eclampsia have been entirely negative. The presence of urobilin and urobilinogen, in many cases, may indicate early hepatic irritation. Contrary to our earlier teachings, the study of the urea output shows little, and Cragin has shown cases with quite low urea in which no eclamptic symptoms followed.

The differentiation of renal eclampsia and hepatic eclampsia seems to be supported by the fact that urobilin and urobilinogen are not present in all cases. Smiley doubts whether such a classification has a leg to stand on. He is inclined to the view that there is in all cases a definite selective action of the eclamptic toxin in the liver primarily, and that the changes in the kidney parenchyma are secondary following the role played by the kidney in all toxic conditions. He has never failed to find, at autopsy of an eclamptic patient, definite gross and microscopical changes in liver tissues at all stages of degeneration, even up to massive necrosis. Definite changes are found also in the kidneys, but not as severe as those in the liver.

The course of eclampsia may be divided into three periods, namely: (1) the prodromal stage; (2) the preeclamptic stage; (3) the true eclampsia which may be mild or severe. Obviously, on the first appearance of prodromal symptoms, intensive treatment should be instituted so as to ward off, if possible, the actual eclamptic explosions. It is to be kept in mind that the prodromal symptoms may be very slight. They manifest themselves in the later months of pregnancy, say from the sixth month on, and occur in primiparæ in about seventy-five percent of all cases of eclampsia. A tendency to insomnia, more or less irritability, inability to concentrate on one subject for any length of time, slight headache followed by vomiting, a feeling of discomfort, edema which, however, may be absent. All these symptoms call for careful observation and watchful care.

In about eighty percent of cases, vigorous treatment at this time will be successful; the other twenty pass into the preeclamptic stage, no matter what treatment is employed. The symptoms then become worse, the blood pressure shows an inclination to rise steadily; but even in this stage much can be done to prevent the final stage, the true eclampsia.

The time to treat eclampsia, Dr. Smiley says justly, is before its occurrence. This point cannot be too often repeated, and if once thoroughly realized, eighty percent of the cases can be avoided. The proper prenatal examinations made regularly and conscientiously will usually detect the early signs and symptoms of impending toxemia, or its presence, and the careful management of the case at this time will carry the patient to a successful termination of her pregnancy, with little or no trouble in the majority of cases. The careful interpretation of complaints, and the proper examination of the blood pressure and urine, will give the attending physician sufficient knowledge as to the progress of his patient's condition. The mere examination of the urine for the presence of albumin is not sufficient, but search should be made for casts, blood, urobilin and urobilinogen. Careful observations of the blood pressure should be made and records kept. A sudden rise or a gradual rise over a period of time should demand investigation. Eternal vigilance will bring its reward.

The treatment of the prodromal stage should be strictly enforced, and under the control of the physician. Hospital care should be instituted if this control cannot be obtained at the patient's home. The patient should be placed in bed immediately so that complete rest may be secured. A stoppage of all food, and only milk, from two to three quarts a day, allowed. It may even be necessary to stop this food. All the organs of elimination should be stimulated so that the proper functioning may take place. Daily warm baths should be given to stimulate the action of the skin. The bowels should be made to move daily, or even several times daily, and saline cathartics administered to secure these results. A daily colonic irrigation of several gallons, preferably with five-percent glucose solution,

should be given, and upon the return of clear fluid a sufficient quantity be left in the bowel for absorption. The kidneys should be activated and may be helped by the proper use of diuretics. This course of treatment should be kept up until there is definite improvement, which usually takes place in from ten to fourteen days. As the condition improves, the diet may be gradually added to, and the patient allowed out of bed. A careful watch should be kept over her continually, and, if any tendency to relapse occurs, an immediate return to treatment be instituted. In this way, often the patient can be carried to full term and labor proceed normally with no untoward results. Thyroid extract in five-grain doses should be given, and a watch kept on the heart action, decreasing the dose if necessary. Calcium lactate may also be tried.

If, in spite of treatment at this stage, the patient grows progressively worse, which will happen, or if she is seen in the preeclamptic period, a definite routine treatment should be planned and the advisability of terminating pregnancy considered. The urine becomes scanty, edema more marked, frontal headaches persist, vomiting takes place, eye symptoms manifest themselves, and epigastric pain is complained of. There may also be present a severe itching over the body. Such a picture completes the clinical aspect of the preeclamptic, who soon lapses into convulsions.

At this time, the author advocates the socalled conservative treatment which should be adapted carefully to the individual requirements of the patient who should be in a hospital, in a darkened room and under the continuous supervision of the nurse. Efforts are made to reduce an existing acidosis and to relieve the toxemia. If convulsions actually occur, delivery may be called for at once, but here Smiley insists on the "hasten slowly" as most likely to prevent ultimate injury to the patient. The details of the splendid measures outlined in this paper must be read in the original. To close:

"The entire question can be summed up in a few words—treat the patient before eclampsia develops and thereby eliminate eighty percent of the cases. When convulsions are unavoidable, treat in the simplest manner possible, allowing nature full scope, and when assistance becomes necessary, use measures that will give results with a minimum amount of shock and trauma. Conservatism may be the method of choice, but radical measures have their place in the treatment of eclampsia. Each patient should be studied carefully and the method of treatment chosen should be the one best adapted for that individual case, and not chosen for the reason that it was successful in another case of eclampsia."

THE RED CROSS ROLL CALL

On Armistice Day, November eleventh, the American Red Cross will start its annual Roll Call on which occasion old members of the organization will be asked to renew their membership, and new members are enrolled. It is hoped that everybody who has been a member of the Red Cross will be prompt to pay his or her annual contribution, by way of membership fee, and thus aid in the great work that the American Red Cross is carrying on all over the world.

It is not necessary to enter into details. As physicians, we are quite familiar with much of the work that is accomplished by the Red Cross. Most of us still have vividly in mind the numerous activities of the American Red Cross during the war, then on the occasion of disasters, such as the earthquake in Japan. Wherever there is trouble, whether at home or abroad, the American Red Cross is ready and anxious to step in the breach and to bring help.

We have, in the American Red Cross, an agent through which we can give aid to those in need, and we could not wish for a more capable agent for that purpose, because of the remarkable organization and facilities that have been developed. The work is worthy of our support. Let us renew our membership in the American Red Cross, with an annual payment of one dollar, or five dollars, or ten or twenty—whatever our purse will be able to spare. And, Do It Now!

There is nothing in the world so much admired as a man who knows how to bear unhappiness with courage.—Seneca.

THE "ABORTIVE" TREATMENT OF SYPHILIS

Impressed with the unusually powerful effect of arsphenamine upon various spirochetes, including that of syphilis, Paul Ehrlich expressed his belief in *therapia magna sterilisans,* a method of therapy based on one massive injection of a powerful drug. The purpose of this method is to destroy, at one stroke, all living spirochetes harbored in the host—the advantage being that no spirochetes could survive and become adapted to the

effects of the chemical compound. The theoretical considerations at the bottom of this plan of treatment were obtained from the studies of socalled drug fastness which parasites may acquire. For instance, by repeated injections of small amounts of drug, Ehrlich was able to cultivate trypanosomes resistant to the highest doses. In order to prevent such fastness or adaption to the remedy in syphilis, the suggestion was made to attempt to destroy all spirochetes with one maximum dose of arsphenamine. This plan found followers in this country in Pollitzer, whose program consists of a daily dose of 0.4 to 0.6 Gm. arsphenamine for three successive days, followed by weekly intramuscular injections of salicylate of mercury for a period of eight weeks; in Schamberg, who gives a dose of 0.9 neoarsphenamine twice a week for two weeks and then once a week for 8, 10 weeks or longer; in Hazen, who makes 8 injections in doses of 0.4 Gm. arsphenamine (or 0.6 neoarsphenamine)—the first 4 at three to five day intervals and the last 4 at weekly intervals; and in Stokes, who gives 3 almost maximum doses during the first 9 days, followed by weekly injections of milder doses until the number totals 6 to 9 injections.

Abroad, this method inspired a group of syphilologists to advocate the socalled "abortive" treatment of early syphilis, which consists of giving the patient an intensive short course of treatment chiefly with arsphenamine or its derivatives. The main issue, which created much discussion in medical literature, is, whether such therapy is possible, theoretically, and whether it yields, in each case, the full therapeutic result. The theoretical question is answered in part by Kolle's recent investigation, undertaken primarily with the view of throwing light on this problem of abortive treatment. Judging from the results cited in Kolle's article, discussed in the preceding pages, abortive treatment is not capable of yielding success, unless it is instituted no later than 45 days after initial infection. And even at that, some cases are bound to be totally resistant to treatment with highest doses, as experimental work on animals has proved. If this is the case, then abortive treatment, as its antagonists properly point out, would appear to be a dangerous procedure, because it is based on limited therapy, involving but a few massive injections or only one course of treatment. In fact, it has been shown by some that patients subjected to the abortive regime failed to become free of spirochetes. In addition, they were deprived of the benefits of several courses of treatment, extending frequently from one to two years.

The abortive method of treatment consists of the application of powerful therapeutic measures at the early stage, in order to prevent the generalization of the disease by destroying all of the organisms. It is based on the assumption that, at this stage, when the Wassermann is still negative all of the spirochetes are at the original site of infection and have not yet succeeded in breaking the lymphatic barriers and spreading through the circulation. At such a time the introduction of arsphenamine would kill all the spirochetes and the patient would at once become sterilized. As Wassermann, who is one of the initiators of this method, said: "The patient will not even acquire the disease, being cured soon after infection." It was the same supposition that led syphilologists in the prearsphenamine era to the idea of extirpating the chancre, that being thought the only site of infection. For abortive treatment one short but intensive course of arsphenamine—with strong doses, say, every other day—was considered sufficient. Advocates of this method declared that this treatment, properly applied, should be successful in 100 percent of cases, maintaining that the proof of extinguished syphilitic infection is the Wassermann test, which after abortive treatment remains negative. But, unfortunately, this evidence is not always reliable. While a positive Wassermann is often a sure symptom of syphilis, at least sufficient cause for instituting anti-syphilitic treatment, a negative Wassermann is by no means an indication of the absence of lues. Our serological tests are not sensitive enough to afford absolute evidence of the presence or absence of syphilis.

There are instances of cases which suffered relapses after socalled "successful" abortive treatment. Such cases were explained by the advocates of abortive treatment as due to an incorrect application of the method, inadequate treatment, or a late application of treatment. But there are also instances which gave indications of curability following abortive treatment—these cases having presented evidence of reinfection which is regarded by many as proof of the absence of syphilis.

G. W. R.

Leading Articles

Medical Economics

By EDWARD H. OCHSNER, B. S., M. D., F. A. C. S., Chicago
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THE problem of medical economics has interested me for a good many years, principally, I think, because it has been so generally neglected by medical teachers, medical authors and the medical profession in general. If European medical men had not considered medical economics beneath their dignity, they would not now be in such dire straits. They would not have had all of the welfare and uplift schemes forced upon them, the worst one of which is Compulsory Health Insurance, if they had realized the danger before it was too late. We of the American medical profession should benefit by their mistakes and, I hope, this will be the one exception to the general rule, that humanity learns nothing from history.

The practice of medicine may be divided into the science of medicine, the art of medicine and the economics of medicine, and only he who grasps the importance of all three can hope for the greatest success or render the greatest service to society.

Medical science is the foundation rock upon which medicine rests; the art of medicine is the practical application of those natural laws which apply to health and disease. One of the purposes of the study of medical economics is, to discover means whereby more of the scientific truths already known can be put to use for the alleviation of human suffering and the prevention of premature death; another is, to find out just what the shortcomings of the present-day medical practice are, and still another is, to find out the Why of Cults and Quacks and to devise means to reduce the number of these parasites so far as possible.

A Few of the Principal Reasons for the Existence of Cults and Quacks

A certain percent of the human race is born gullible and these victims thus afflicted do not seem to be entirely happy unless they are buncoed about so often, and, with this fertile field for exploitation always at hand, somebody is sure to fill the demand. If one cult wears out its welcome, others stand ready to take its place. These gullible ones, like the poor, have always been and probably always will be with us. The most we can hope to do is, to gradually reduce their relative number by keeping the public properly informed on medical and quasi-medical topics.

Probably the next most common cause for the existence of cults is the mistakes of the medical profession and, of these, there is probably no greater booster of the cults than our mistakes in prognosis, particularly in cases where the physician in charge makes a prognosis that the patient is incurable. Fortunately for myself and, I think, also for my patients, I learned this lesson early. During the first three months of my intern service at the Cook County Hospital, a young woman in the early twenties was brought to the hospital in an ambulance. She was well nourished, in fact plump, was breathing at the rate of 48 times a minute and was supposed to be desperately ill. I spent at least half an hour examining her and was unable to find anything abnormal except the rapid respirations. I reported to my senior that I believed the young woman was suffering from hysteria. With this diagnosis, he disagreed and called in a prominent neurologist who was on the consulting staff of the hospital. The patient was studied intensively for a number of weeks, photographed almost nude in a number of outlandish positions and her case was reported in a prominent neurological journal as a very unusual one. If I remember correctly, the diagnosis was multiple muscular atrophy and the girl was told that she could not possibly recover, she was advised to so inform her parents who lived in Germany, urged to return home to her native country if she could procure the necessary funds and, in the meantime, she was kept in bed and steadily grew fatter.

At the end of about fifteen months, she

grew tired of her shamming and had a friend take her to Dowie's tabernacle. Dowie laid hands on her and she walked away HEALED (?). This particular case furnished a topic for Dowie in many of his vituperative harangues on the medical profession, was reported in one of the numbers of his *Leaves of Healing*, covering many pages, and was undoubtedly the cause of many people flocking to him. My criticism of this case, after these many years, is not so much the mistaken diagnosis as the mistake of giving the girl such a hopeless prognosis.

Several years later, I was called, one morning at 2 o'clock, to the Augustana Hospital to see a man who was reported to me as bleeding to death from a secondary hemorrhage from the appendiceal artery. When I got there, he was blanched white, the hemorrhage had been so severe as to form a pool of blood on the floor under the bed. The man was cold and clammy and apparently gasping his last. While I was on my way to the hospital the intern had packed the wound with gauze and there was no visible bleeding when I got there. The patient was at one end of a large room. I took the intern to the other end of the room, separated from the bed by a screen, and whispered to him certain instructions and, possibly fortunately though stupidly, ended by saying "They will probably do no good as the patient will undoubtedly die, but we will have to try everything". The patient did not die and, two weeks later, told me his reason why he did not die. He said he had heard me whisper to the intern and made up his mind to fool us. He lived happy for some fifteen years after this incident and always ascribed his recovery to my stupid but fortunate remark. It is a well-known fact that, just before dissolution, the senses sometimes become extremely acute and this was evidently one of those cases. It is also a well-known fact that a patient's determination to live sometimes saves an otherwise hopeless case.

Some thirty-five years ago, one of Chicago's most prominent surgeons operated on a colleague's wife. When he got through, he told the husband that the patient could not possibly recover. The husband, unfortunately, told her sister and the sister foolishly told the patient. This particular patient outlived the great surgeon by some twenty years and never forgave him for his bad prognosis.

These three cases and a number of others since have convinced me that we cannot be too careful about making too definite a prognosis. We should always leave a loophole. This is both honest to the patient and fair to the profession because every now and then an apparently hopeless case will unexpectedly end in recovery.

In this connection and while not bearing distinctly on the subject in hand, I want to report three cases in order to condemn a practice which is all too common, namely, to tell a patient never to do this or never to do that, particularly never to permit any one to give an anesthetic. Twenty-two years ago, I was called to see a patient some five miles in the country out from West Liberty, Indiana. The patient, an elderly woman, was suffering from a strangulated umbilical hernia of ten days' standing. She was in desperate condition but still conscious and mentally clear. The first question I asked was: "Why have you let this go so long"? She answered by saying, "Twenty years ago, Prof. Blank (one of Chicago's most prominent internists of that time) told me never under any circumstance to permit any one to give me an anesthetic because of the condition of my heart". The family physician who had called me in administered ether and, with the assistance of a trained nurse, I performed the operation and found in the hernial sac a completely gangrenous transverse colon with many perforations. This was excised and the wound left wide open. The patient stood the anesthetic nicely and survived the operation three days, proving conclusively the stupidity of the professor's remarks and the fact that they were probably the cause of the untimely death of this woman; it also came very near resulting in the death of the nurse. The patient was in a large room in a farm house in the open country. The stench was so extreme that, in spite of the fact that all the doors and windows in the room were open day and night, the nurse developed a condition which I have never before seen. Her face and mouth and nose became swollen and blistered and I feel today that. if the patient had lived another day longer, the conscientious nurse, who would not give up, would probably have been an additional victim.

Some fifteen years ago, there called on me at my office a woman suffering from a substernal goiter of such size that she was scarcely able to speak and which was almost strangling her. I asked her too why she had neglected to seek relief sooner and she told me that, twenty-five years previously, Chicago's leading surgeon of that time had told her never to have any one touch her goiter because it would mean sure death. But she

told me, as best she could with her difficult respiration, that she had gotten to the point where she must have relief or die from strangulation. I sent her to the hospital and operated on her the next morning. The patient was scarcely awake when she thanked me, with a profusion such as I have rarely experienced, for having relieved her of her suffering. She made a rapid and uneventful recovery and I have rarely had a more grateful patient.

Some eighteen years ago, I had charge of a prominent physician who was suffering severely from stone in the urinary bladder. I advised an operation. He told me that, about ten years previously, one of Chicago's best-known surgeons had passed a sound after cocainizing the urethra, that he very nearly died and that this surgeon had told him never to allow any one to pass any instrument into the bladder, that, if he permitted it he would surely die. As the operation was absolutely necessary, I assured the physician that an operation on the bladder under ether and the passing of a sound under local cocainization were entirely different procedures and that, while the second might be very dangerous, the former would be relatively safe. I thus finally persuaded him to submit to an operation the following morning. As the physician heard the hospital cart come down the hall the following morning, he gasped, fell backward and was dead. I have always felt that this was a case of death from fright.

Uncultivated Fields of Practice

Another one of the most common causes for quacks and cultists and all forms of non-medical practitioners is the fact that the medical profession has permitted some very fertile fields to run fallow. We have to a large extent permitted minor cosmetic surgery to fall into the hands of beauty specialists; minor foot troubles to be taken up by chiropodists, non-medical foot specialists and shoe salesmen; such important work as anesthesia, x-ray and laboratory work to fall into the hands of lay technicians.

The former two fields have been allowed to slip from us because of the false notion among many medical men that such work is beneath their dignity. This attitude is all wrong. Nothing which has to do with deformity, with ill health and discomfort should be too trivial for medical men. If a surgeon feels too important to relieve a woman of unsightly moles and scars of the face, he should at least have some associate who would look after these matters, or some ethical colleague to whom he can refer such cases. The same with corns, callouses, bunions and flat feet. In the question of anesthesia, x-ray and laboratory work, the great clinicians are not entirely to blame because it is almost impossible today to get even an intern to give anesthetics or to do laboratory work satisfactorily, or to get an assistant or an associate who will do it. As a result, clinicians are almost forced to train lay technicians who will do such work willingly and hence more satisfactorily. An unwilling intern anesthetist or an unwilling medical man as laboratory technician is worse than useless.

Whisky Prescriptions

Young physicians just through with their intern service should be made to realize that the best way to get a start in the practice of medicine is, to associate themselves with a clinician with large practice and extensive experience and they should be willing to give anesthetics and do laboratory work until they can be worked into doing clinical work. At present, many of them seem to have the idea that the best way to get along in the world, when they get through with their intern service, is to procure a job with the health department or some large industrial concern and a book for prescribing liquor and sell the latter at $3.00 a prescription to anybody who comes along. I think that this is about the best way to assure oneself of a brilliant failure, because the man who is supplied with a liquor prescription for $3.00, practically illegally, never has any respect for the doctor who gives it to him, and, if he or any member of his family becomes ill, he is almost sure to go to some other physician, because he knows that the man who gave him the liquor prescription under the existing circumstances is a crook and not to be trusted. I have the greatest respect for the man who conscientiously prescribes liquor in his practice if he thinks it is indicated, although personally I disagree with him. I do not think that liquor is necessary in the practice of medicine, I have never had a liquor prescription blank book and never prescribed spirits. I have, however, nothing but pity and contempt for the young physician who starts out in the manner outlined. He is a disgrace to the medical profession and is almost sure to be a failure.

Giving Anesthetics and Political Jobs

To recur to the question of anesthetics, I wish to observe that the intern who is too

good and too self-important to willingly give anesthetics is making one of the greatest mistakes of his life. I know of no other experience available during one's intern service which gives one the same opportunity to learn how to evaluate the physical condition and resistance of a patient as giving anesthetics does. As I look back over the years now, I believe that the approximately 200 anesthetics I gave, while an intern, formed one of the most valuable parts of my experience. How can an intern, who has never given to exceed a dozen anesthetics and these unwillingly and perfunctorily, ever expect to become a competent surgeon? Personally, I have saved more than one patient by an inexplicable something which told me that not all was well even before a competent anesthetist sensed the danger, and this I learned, in part at least, by myself giving anesthetics.

Those recent graduates who can think of nothing better than getting a job with the health department are equally short-sighted because they do not realize that, some nice day, bureaucracy in this country is going to get a terrible jolt. The great majority of the men and women who are now sitting pretty on a salary and with little work will get a most awful jolt and, if this jolt comes to them after they have reached the age of 45 years or more, they will find it almost impossible to adjust themselves to the new conditions. Besides, political positions are extremely uncertain and nothing is more pitiful to me than the condition of a physician who has gradually climbed to the top in the health department and, some nice morning when the wheel of political fortune has turned, finds himself high and dry without a job and without the means of making a livelihood.

Other Neglected Fields

While the intensive study of medical problems by many medical men at the same time has probably been the most important factor in medical progress during the past half century, it has also resulted in the neglect of other important problems. The intensive study of pelvic surgery, of appendicitis, of gallbladder diseases, of ulcer of the stomach, has all but solved these problems. But it has diverted our attention, for the time being at least, from other problems quite as important. Some medical men remind me of a horse with blinders only able to see just what is in front of them. A real up-to-date physician does not limit his vision of the present needs of the future possibilities of medicine with blinders. Nor does he limit his vision and comprehension of the ills of his patients to an examination with a microscope, fluoroscope, cystoscope or any of the other limited fields of investigation. He first of all gets a general knowledge of the condition of his patients by a general physical examination which he makes with the use of his five senses, and he resorts to the other diagnostic methods only after his first general examination.

Some of the problems, which should be intensively studied by the medical profession at this time, to their own great financial advantage as well as to their glory, have received almost no attention. One of the most important of these is the study of chronic fatigue intoxication and the rehabilitation of the worn-out, over-worked individuals of whom there are literally thousands in this country. Because of our lack of attention to this problem, these poor worn-out persons drift into the hands of quacks who exploit them, take their money and do them no good. This is a big field for the medical profession. If we could get one physician for every 50,000 inhabitants of the United States to make a study of this subject and treat and relieve this type of patients, we would come mighty near putting the cults and quacks out of business within five years.

In addition, we should put to use the knowledge already at hand about the non-operative treatment of goiter, the non-operative treatment of varicose veins and ulcers, and a number of other subjects I might mention. There are here many neglected opportunities—opportunities grasped by only a small percent of the medical profession, fine fields of endeavor allowed to run fallow and other fertile fields never reclaimed and cultivated; opportunities which it is our duty to make use of if we would best serve the public. If the editor of this journal will lend me his ear or, better still, give me the space in his journal, I hope to develop some of these problems and show the American medical profession how it can save the public millions of dollars annually, money that is now being wasted on quacks; how it can honestly earn much of this same money and, incidentally, be of much greater service to suffering humanity than it has ever been in its long and glorious history.

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Periodic Mouth Examinations

A Necessity—Not a Luxury

By ALFRED ASGIS, Sc. B., D. D. S., New York City

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THE indifference of the general public to periodic mouth examinations is a condition which the practicing dentist constantly notes and, if he is a conscientious practitioner, bemoans. The average person looks upon the periodic examination of the mouth and cleaning of the teeth as even more of a luxury than having her complexion made in a beauty parlor instead of in her own boudoir. Such a person is quite willing to pay a reasonable fee to have the nerve of an aching tooth killed or a decayed tooth replaced by a pretty gold substitute; but to give the dentist good money, years in advance, for preventing the hypothetical ache seems like paying the undertaker before the corpse is laid out.

This popular indifference is based on the belief that the only event to be feared in connection with the teeth is *pain* and disfigurement and the corresponding confidence that the modern dentist can, in all cases, stop pain by "fixing" the teeth in some mysterious fashion or at least by replacing them if they prove a persistent nuisance.

What the public does not know, or knowing ignores, is the less obvious and more subtle fact that toothache is only one of the relatively minor ills which may arise from infected teeth; that the "fixing" of teeth, as ordinarily practiced, does not in general remove but rather accentuates these ills; and that mechanical restorations are, by and large, not only poor substitutes for the original masticating apparatus but are frequently positive menaces to health.

These beliefs in turn rest upon the more fundamental fallacy of considering the teeth not as integral and living parts of the alimentary tract, and hence of the body as a whole, but as separable and independent appendages, like their eye-glasses and their ear-muffs whose condition bears no immediate connection other than that of convenience to the living organism and which can be replaced at the corner store when they are worn out.

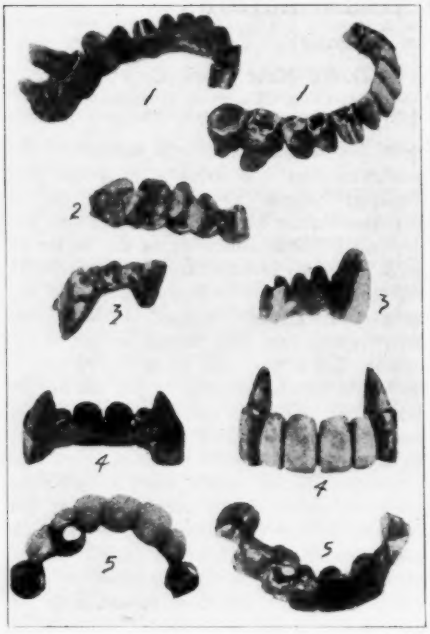
Public indifference to and ignorance of the dangers of mouth infection can only be overcome by adequate educational propaganda. But, such education has been hampered in the past by the indifferent attitude of many conservative physicians and dentists and by a belief on the part of a large number of the profession that it is impolitic to spread professional "secrets" among the laity. Or, to put the matter bluntly, many dentists are opposed to public education on the matter of focal infections because they hold to the belief that such dispersion of knowledge would adversely affect their income. Perhaps that belief is well grounded, though we are of the opinion that it need not be in the future, if the public can be educated to pay the dentist for advice and help on how to keep well instead of merely hiring him as a mechanic to install or repair oral plumbing.

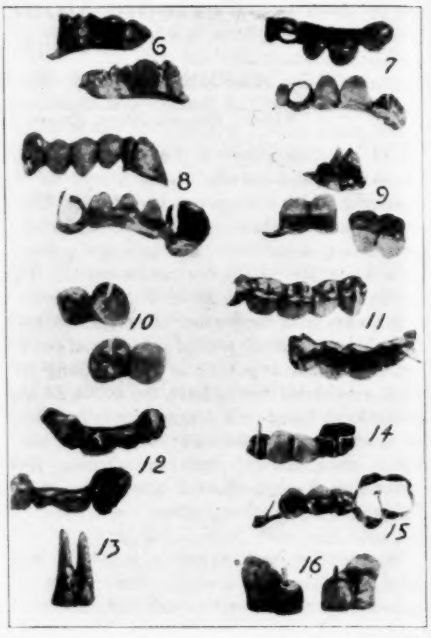
Another factor which hampers effective public education at the present time is the fiasco of the ruthless extraction of teeth which has characterized much of the popular propaganda on the topic of focal infection to date. Teeth have been sacrificed in the hope of curing all kinds of diseases. Exodontia became a fad which spread like all other fads. The dentist, taking his orders as usual from his patients, followed suit and then, when no results commensurate with the damage done were forthcoming, cast it aside into the graveyard of all panaceas.

The trouble was not with the practice of pulling infected teeth as such, but with the fact that this practice was not correlated with all the other factors connected with the origin and spread of systemic infection from the mouth. So long as those factors remained and increased, the mere pulling of a few miscellaneous teeth was merely adding insult to injury.

The public must now again be taught and the dental profession must recognize it as its duty to teach that chronic infections in the mouth are a common and serious menace to health and, in addition, that the pyorrhetic and carious conditions, which in the first instance cause these infections, must be treated at their source and not by the final pulling of teeth which have thereby reached an abscessed stage.

The seriousness of chronic focal infections in the mouth is a topic which cannot be too much emphasized. They are the immediate and direct cause of diseases of the eye, ear, nose, throat, kidneys, heart, joints, intestinal tract and nervous system. Dr. Oliver T.





Figs. 1 and 2. Specimens of Work from Prominent Men

These specimens are not the work of all-around incompetents; authors, clinicians, professors of prosthodontia figure among those at whose doors the existence of these specimens may be laid; men who, in some instances, are not so painstaking, that they fill the root canals of multiple-rooted teeth with gold-foil, then crown these teeth in the manner here shown, and execute the bridgework in this faulty fashion. The more carefully one examines these specimens in full detail, the firmer grows the conviction that such work is empiracal and without any scientific foundation.*

Osborne, professor of Therapeutics in Yale University Medical School, who has repeatedly called the attention of the public and the profession to this menace, sounds the following warning.

"The platform on which every physician and dentist must stand is that, no matter what the disease may be, and no matter what the cause of the disease, and no matter how negligible the part that infected teeth and gums play in the disease or disturbed condition, it is dangerous and a menace to the patient and to his family to allow him to be a carrier of germs of infection, and these germs are frequently the streptococcus viridans, pneumococci, pus germs, and that not well understood Connellan-King diplococcus. Hence, it is the physician's duty to order the surgical removal of mouth infection, and it is the dentist's duty to make an infected mouth clean."

Dr. Frank Billings of Chicago, in his extensive research in discussing the etiology of focal infections, considers infected teeth, pyorrhea, alveolar abscess and the sinuses as the seat of primary infection.

"Focal infection especially of the structures of the mouth and the upper air passages is a very prevalent condition. The incidence of infection of the mouth is enormous everywhere. In addition to the presence of innumerable saprophytes in the mouth and pharynx, one may find in the saliva and pharngeal mucus streptococci and staphylococci, micrococcus catarrhalis, pneumococci, diphtheria and pseudodiphtheria bacilli, meningococci, tubercle bacilli and many other pathogenic bacteria."

Dr. G. H. Bell, of the New York Eye and Ear Infirmary, in a paper before the Academy of Stomatology of Philadelphia, emphasized the importance of this factor in his specialty.

He repeatedly emphasized that:

"The arch enemy of the ophthalmic surgeon is oral sepsis. Patients must stand the acid test for focal infections, 'the three T's,' before we will consider the operation. This applies to all patients except emergency cases."

Dr. Henry A. Cotton, medical director of the New Jersey State Hospital and lecturer in psycho-pathology at Princeton University,

*For a detailed description of this dental work see: Draling, Byron C., Oral Sepsis as a Focus of Infection; *American Journal of Roentgenology*, March, 1916.

whose work on the arrest of insanity through the elimination of chronic foci of infection is already widely known, is tireless in his reiteration of the necessity of the care of the mouth. Doctor Cotton says:

"We have had the opportunity to examine the work of men who make a specialty of filling the root canal, but we have found, in spite of the assurance given to the patient, that the abscesses were cured and would cause no further trouble, that these teeth, when extracted, were badly infected and cultures showed streptococci in abundance. You should not allow your dentist to fill root canals. If the tooth is dead it should be extracted."

Fig. 3. X-ray in the living: Long history of arthritis; many dead teeth and much dentistry, but no root canals emptied or filled; neither pain nor external evidence of disease. 1, 2, 3 and 4. Varying stages of apical osteitis.

We need not multiply authorities further for the fact is already patent and beyond the stage of reasonable controversy. But, it is not and will not be known and acted on by the general public until every practicing dentist seizes every opportunity to impress its truth upon the patients as a fundamental principle of health conservation. Dr. Otto U. King, secretary of the American Dental Association, believes that:

"The great work for the medical and dental profession is to discover the fundamental causes of diseases and then to educate the public to adopt preventive measures.

"Dentistry in the final analysis has for its real aim the ultimate elimination of itself."

This holds good for dentistry and for the dentist whose function is that of the mechanic.

But, the duty of the dentist as a public educator does not end there. He must also teach his patients that the causes of mouth infections—pyorrhea, alveolar abscesses, dead and decayed teeth and unsanitary restorations—are conditions which need not exist in the mouth, if proper care and attention is given

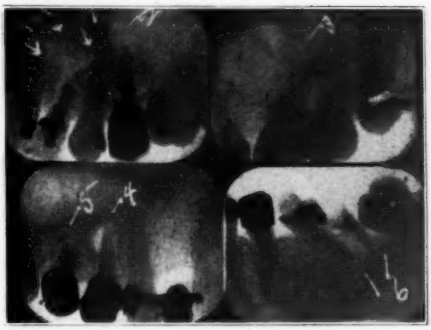


Fig. 4. X-ray in the living: Patient has optic neuritis and total blindness, not syphilitic; no sinusitis or other infection found. 1, 2, 3 and 4. Crowned, but root canals not emptied or filled; marked areas of apical osteitis. 5. First bicuspid; only one of the two canals filled; whole fused root diseased.

to this important organ. He must emphatically state before his patients that dead teeth, even though apparently in "good condition" and clean, are a menace to health. Dr. Joseph Novitzky of San Francisco, after many years of research at the University of California, clearly says that:

"Every dead tooth is infected; that no method of 'treatment' has succeeded in rendering a dead tooth permanently sterile and harmless; and that the only safe procedure, in the case of a dead tooth, is surgical removal of the tooth and surrounding regions of infection."

To avoid ambiguity of what is meant by a dead tooth, Doctor Novitzky explains that:

"The term 'dead teeth' signifies every tooth that is really lifeless; namely, every tooth that is pulpless. A pulpless tooth is dead, no matter what embalming process has been used on it."

That artificial killing of the nerve of a tooth, or what is known among dentists as "pulp devitalization", is a menace to the health of the patient, is reiterated by Dr. Edward C. Rosenow of the Mayo Clinic.

A paper published recently in the *Journal of the American Dental Association* (October 1924), dealing with the experimental and clinical studies on focal infection and elective localization, points out the newer findings and their significance by stating that:

"Devitalization of teeth, as practiced in the past, has been proved to be a dangerous procedure and should cease. Suitable restorations have been devised which no longer make this necessary. Simple extraction of infected teeth is not always sufficient to insure freedom from infection in the jaw, particularly of the tooth that has become infected after artificial devitalization. Filling in of bone as revealed by roentgenograms, following root-end ampu-

Fig. 5. X-ray in the living. Extreme stripping from pyorrhea (Rigg's Disease). Even the ends of the roots, as well as the entire alveolar processes, are absorbed. Note the uncleanly bridge on the lower front incisors.

tations or the antiseptic treatment through root canals, still in vogue, does not necessarily mean that infected areas around teeth have become sterile."

It is the great function of the dentist to teach the people to care for their teeth so that the gums will not become diseased, the teeth will not decay and pernicious mechanical restorations will not become necessary. Just as the public-spirited physician teaches the patient how to live, so the progressive dentist must teach his patients how to care for the mouth and teeth and assist in that care to the best of his ability. Why dentists are little concerned with the practice of preventive dentistry is pointed out by Dr. John L. Kelly of New York City, for years an advocate of dental prophylaxis. Doctor Kelly deplores this condition which is due to the fact that:

"Dentists devote their time and energy to reparative work and, therefore, preventive dentistry remains an indifferent issue with the majority, and prophylaxis—which should be the slogan of our profession—is at this time only visioned by the most enlightened."

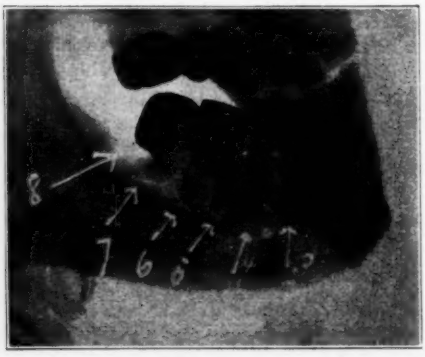


Fig. 6. X-ray in the living: Long history of arthritis. 3 and 4. Crowned teeth with root canals not filled, showing slight apical osteitis. 5, 6 and 7. Crowned fifteen years; roots completely stripped from alveolar absorption (pyorrhea) or from extension of apical osteitis; canals never emptied or filled. 8. Root lost through disease.

Probably in the first instance, pyorrhea and decay or dental caries are the leading causes of chronic infections in the mouth. The public must be taught that these diseases are to be guarded against with the same care as they employ against smallpox and yellow fever. The method is simplicity itself, but its practice requires work and attention and the active cooperation of the patient with his dentist.

As for pyorrhea, whatever its ultimate cause, all dentists are agreed that it can be checked by keeping the gums and surrounding tissues healthy. In order to effect this, it is necessary to maintain in them a proper blood

Fig. 7. X-ray in the living: 1. Normal side showing cancellated bone detail. 2. Large apical abscess (osteitis) following porcelain crown and pivot; infection caused by failure to empty and fill the canal. Such "whited sepulchres" must become diseased.

circulation. Since the soft food of the modern kitchen does not serve as an adequate stimulant, we have to resort to the artificial method of gum massage. It must be recognized that neglected gums become diseased very slowly and that their unhealthy state is difficult to recognize in its early stages. But, the invidious disease is no less potent because it is hidden and it can be warded off only by an equally slow and continuous prophylactic treatment.

Decay, on the other hand, is caused by the fermentation of particles of food which cling to the surfaces of the teeth. The most efficient method of preventing it is to keep the teeth polished, for food will not readily adhere to a polished surface or will be quickly swept away by the movement of the cheeks and tongue.

In part, the dentist can and should teach his patients to practice such habits of cleanliness at home, but that will not eliminate the necessity for periodic professional examina-

Fig. 8. X-ray in the living: 1, 2 and 3. Snags; no dental treatment. These small foci the only known cause of chronic arthritis of the hip, incapacitating a vigorous working man; the other hip is now involved. 4. First bicuspid. Root canals, not completely filled, show apical disease.

tions. The dentist, with his technical skill, can reach nooks and corners which become neglected or overlooked by the most conscientious patient; he can read the signs of disease which are unknown to the layman; and, by means of the x-ray, he can discover the condition of the supporting bone and the interior of the teeth which is hidden from superficial observation. He can further catch incipient points of decay before they have become serious and thus save the teeth to life and usefulness. Abnormal conditions of individual mouths also frequently arise which require special care and treatment.

Prophylactic care and treatments, then, are a necessity of health, not a luxury to be indulged in by the rich. They enable the dentist to observe any abnormal changes, to check pyorrhea in its early stages, to stop decay at its inception, to fill small cavities, to prevent the accumulation of tartar, and, in general, to keep the gums and teeth in a healthy condition. To this end the dentist and the public will have to cooperate, the dentist by spreading information as to the prime necessity of mouth hygiene and the public by a willingness to pay for periodic examinations and prophylactic treatment instead of for gold monuments over embalmed stumps.

Photographs by courtesy of Byron C. Darling, M. D., Director, New York Medical Laboratories, Inc. 33 West 42nd Street.

THE LAMPLIT HOUR

Dusk—and the lights of home
Smile through the rain;
A thousand smiles for those that come
Homeward again.

What though the night be drear
With gloom and cold
So that there be one voice to hear
One hand to hold?

Here, by the winter fire
Life is our own.
Here, out of murk and mire
Here is our throne.

Then let the wild world throng
To pomp and pow'r;
And let us fill with love and song
The lamplit hour.

—THOMAS BURKE.

Pruritus Vulvæ

An Interesting Case

By J. LEWIS WEBB, M. D., Chicago, Illinois

Dermatologist to The Ashland Boulevard Hospital, The Salvation Army Dispensary, etc., etc., Chicago, Ill.

PRURITUS vulvæ is a rather common complaint and one that is often hard to relieve. This case is an example of a group of cases that are sometimes mishandled. This report is made to assist those who may be treating similar conditions.

Aside from the relief afforded to the patient, there are several very interesting problems entering into such cases. As physicians, we believe the course we followed to be correct. We relieved the patient from suffering and our course made her no worse than she was.

A rather attractive young woman, apparently about eighteen years of age, entered our office several months ago. She was rather bashful and impressed us as being well bred and modest. After a few preliminary questions, we secured the history about as follows.

For one or two years, she has had trouble about the vulva. She had thought of cancer and syphilis. She had consulted one physician who had made a diagnosis of syphilis and she was ready to begin treatment but was persuaded not to do so by friends. For several months she had been treated by a second physician who had made several applications of silver nitrate solution to the vulva. At the present time she had provided herself with a supply of silver nitrate solution and was applying it herself about once a week.

We were impressed by her nervousness and the fact that she was able to describe in detail the shades of color and the many folds and depression found in the parts. We remarked to her that she must have made many examinations of herself to have become so thoroughly informed. She was possessed of as complete a fear complex as we have ever met. If we were not willing to diagnose cancer or syphilis, she almost insisted that we diagnose some other serious ailment. She discussed the opening of Cowper's glands and argued that they were ulcers. She debated with us that the urethral caruncle was a tumor. The pinker parts of the vulva were pointed out to be inflamed areas. We felt that she must have suffered cruelly from pruritus to have given so much thought to the possibilities. The silver nitrate applications were endorsed by us.

Examination showed a very well-developed vulva, even better fleshed than the average. The hymen was ruptured, but there was no inflammation or excessive vaginal discharge. No erythema; no signs of gonorrheal infection ever having occurred. We made a smear and she had laboratory reports of previous smears and of negative Wassermanns. At the first examination, we made some antiseptic application. We advised her to apply very hot cloths, to avoid strong vaginal douches, and gave her some lactic-acid vaginal suppositories to try to establish the normal vaginal secretion, explaining to her that vaginal douches, especially containing bichloride or lysol, were destroying the normal vaginal secretion. We had a history that she had sought relief from her trouble by douching. She reported after a week and seemed to have found some relief.

The second week we maintaind our treatment and, in addition, advised omitting all condiments from her diet, and prescribed cascara sufficient to maintain soft movements. She reported additional relief, but for some reason had made an application of the silver nitrate.

Several weeks passed and we were congratulating ourselves upon our success when she reappeared. She was again all worked up, fearing cancer, syphilis, in fact any serious ailment. This was impressed upon us as being more characteristic of her case than the local trouble. We repeated our previous examination, debated the openings of Cowper's glands being ulcers and the urethral caruncle being a tumor and gained our point. We were led into making an abdominal examination and found a small movable mass in the left flank which we diagnosed as a floating ovary. This had been found before. The necessity for operation now became a paramount issue. I objected and tried to discuss this subject of complexes with her, finally placing one of the plainer books upon the subject in her hands and pointing out the chapter on fear complex for her to read. She returned after a week and seemed to have secured some satisfaction from the book and the treatment.

I had another spell of congratulatory self-amusement until she phoned for an appointment. Upon appearing in the office, I found her very much excited because she had

consulted another physician and he had advised immediate operation for the ovarian trouble. I objected, having by this time satisfied myself that I was dealing more with a case of neurosis than a disease. I pressed my questions further and obtained this additional history:

Her mother was a rather distant, dignified woman of the society type that lives to secure the approbation of "Mrs. Grundy". Laughter and youthfulness were undignified and almost sinful. Scoldings and moralizing about the conduct of other people were indulged in. The father was a rather subdued man, who occupied a secondary place in the family circle. A brother, a few years older, had married a quiet girl, a semi-cretin and, finding life was not as he had expected, he was now beginning to object to the uneventful and dull routine in which he had been trained and that seemed to be forever hanging over him.

My patient had tried several light positions, but for the most part occupied the place of a quiet, old-fashioned daughter under the protection of her dowager mother. She had received lots of instruction as to the awfulness of familiarity with young men, the necessity for being quiet, dignified, demure, dumb, and dull. From her mother and others she had heard a great deal about the venereal diseases and their prevalence. Still she had no clear ideas upon the subject. People were caught because they had immoral sexual contacts. In some mysterious manner, they were more a punishment for breaking her mother's moral code than an actual, explainable, infectious process. The symptoms, in fact, were only a vague picture in her mind and might include anything from a pain in the stomach, which could be diagnosed as locomotor ataxia, to an acne papule, which was similar to a secondary syphilide. This much was added to my history at this time. We discussed the diseases in which she seemed interested. I advised some additional details of treatment and she seemed much better satisfied.

There was another lapse of several weeks when she appeared again. She gave a history of having gotten along very satisfactorily but, for some reason, she could not overcome her idea of the necessity for much stronger medicaments than those which I had prescribed. She had used some vaginal douches, had applied silver nitrate, had consulted the physician who had applied silver-nitrate solution in his office and, as a last resort, had secured some tincture of iodine and had made an application to the vulva and perineum, burning them badly. I made an examination and instituted appropriate treatment and, having considered the question seriously, had decided to overcome my reticence and go thoroughly into the case.

In the meantime, I had received information that this patient and her family were well acquainted with a gentleman who is pleasant, occupies a position in the very best stratum of society, is a successful business man and who had a well-thought-of wife and daughter. The latter, finding it better suited their ideas of proper culture and refinement to attend a school in a distant city, left the husband to occupy the home in Chicago in the care of a competent but cold staff of servants.

This gentleman (I call him such because he measures well above the average of those we usually call such, and enter into no debate with the reader upon the subject) was well acquainted with the family of my patient. They respected him; and were too much wrapped up in their own ideas of propriety, and too dull mentally, to realize that all might not be as it should. They encouraged the daughter to be his companion and rather gloried before their friends about the interest that so successful a gentleman took in their child. My information was that occasional advantage had been taken of the circumstances. The young woman, actually twenty-two years old, finding it in accord with her temporary fancy and because the gentleman seemed so to meet with her mother's ideas of what a gentleman should be, and because she was infatuated with him and the position he occupies, acquiesced in the occasional indulgence.

After the occasional indulgence had been practiced and the cold light of another day had dawned, the lectures of her mother, the indefinite knowledge of venereal diseases, and the thought that she had broken the moral code that no other person on earth had ever broken without having been struck dead by lightning came crashing in upon her and she suffered the awful sufferings of a Fear Complex. She would apply the solution of silver nitrate, and at last she applied the iodine. She would use any application to punish that part that had damned her. She would become insanely afraid of cancer, syphilis, and every other malignant disease. She would rush to the doctor to try to secure

the assistance of skill to avoid the dangers she feared and could not accept his words of assurance that something awful was not to occur. She never discussed the dangers of pregnancy and I doubt if she had any fears in that direction.

Doctor, you have handled just such cases. They are not rare among what we call our best girls. We have reported the many cases of pruritus, insanity and hysteria that do not seem to respond to the proper treatment. I wish to set it down in big letters that many of these cases belong in the same class as the one we are now discussing. It is wrong to continue to apply solution of silver nitrate, to operate and otherwise mishandle these patients. You are free to do as you consider right and best. In this case, the following course was taken.

We made such applications as were needed to relieve the local injury due to the iodine. We then tried to impress upon her that we sympathized with her position. We led her to discuss her mother, her father, her brother; and she did so until, having reached a point where we believed we had her confidence, we brought up the subject of her relations with the gentleman referred to. She was agitated thereby, and it took considerable tact to make her appreciate that we were not criticising her conduct, that we had not found some sign of venereal disease or were classing her as a moral outcast. We then discussed, as quietly as we could, the very common practice of indulgence, and the fact that she was in that respect very much like many other women. We pointed out the true facts concerning the necessity for infection, connected with venereal disease, the unnecessary suffering she experienced due to the fear complex that was the product of her training, and tried to make her feel that we sympathized with her and had no condemnation; and finally encouraged her to hope that she would sometime meet and marry a man she loved.

Several months have now passed since that consultation. She has ceased to punish the vulva with caustic applications and has not been frantically appealling to physicians to ward off calamitous diseases. We admit that this is not a typical case of pruritus but, inasmuch as three physicians advised drastic treatment under the impression that it was, we feel the subject merits thought.

Feet and Shoes

In Non-Surgical Orthopedic and Footology Service by and Under the Direction of Medical Graduates

By CHARLES CROSS, M. D., San Francisco, California

MODERN, practical and scientific treatment of ailing feet, rebuilding broken arches and the prevention of foot ailments and postural defects is a branch of medical practice that has been developed since the World War.

Examinations made during the war demonstrated that enormous numbers of our citizenry are in some degree afflicted and debilitated because of foot ailments and postural defects. These conditions range from a mild efficiency-reducing ailment to positive and total disability, and the number of sufferers seems to be on the increase.

The shoe seems to be one of the greatest problems. However, before the shoe is blamed, it might be well for the critic to become better acquainted with what may be called the "shoe-wrecking foot". On the street, they are to be seen by the thousands. Correcting the condition is a simple matter, once an exact diagnosis is made as to the posture defect, which is usually at the bottom of the cause. When that is corrected, the shoe question resolves itself to just ordinary good judgment.

Too many of our profession fail to understand that the province of the shoe clerk is to sell merchandise. It is not for him to continue the mistreatment which so many of our colleagues start by sending patients with shoe-wrecking feet to shoe stores for treatment.

The purpose of this paper is to start our colleagues right on the simple matter of aiding their patients in selecting suitable shoes. This information should be given to patients in doctors' offices.

Much has been written about shoe-fitting. Many kinds of apparatus have been devised, through the use of which it is claimed the "little trick" can never fail; yet somehow, it does fail.

Somewhere, I have seen a sort of gunboat appliance, rigged up in somewhat the appearance of a toy. There are projections

on the sides and on the ends which might represent turrets and guns; but, from actual experience with one of them, I think it is a useless waste of money and time.

The simple rule which I have to offer has been in use in my office for twenty years. It was used in the army, and I expect to continue using it because of its simplicity, its accuracy and the rapidity with which feet by the hundreds can be measured for shoes.

Before we select the shoe, suppose we give the foot some attention. Let us see just how many inches long the bare feet are. Standing erect, with the feet parallel, body weight evenly distributed, line of vision on level with the eyes, patient standing on a sheet of paper, the ends of the longest toes and the heels are marked. Then, they are measured. The shoe should be selected for the longer foot. How many inches? Then, on a wooden rod, measure the length in inches which indicates the length of the longer foot. To

Fig. 1. Standing erect, body weight distributed equally on both feet, measure length of both feet.

that, add the width of the nail-joint of the right thumb, and cut the rod at that point.

Now the rule: the rule for a shoe for walking and standing is that the length of the foot plus the width of the nail-joint of the thumb is the length the shoe should be. This measurement is made from the inside of the shoe, at the center of the heel, along the median line, to where the leather joins the sole, at the toe, on the *outside of the shoe!* The notched end of the rod on the outside of the shoe indicates just where the end of the toe will rest on the inside of the shoe. Selected according to this simple rule, mothers need not fear of pinching the feet of their children, to cause

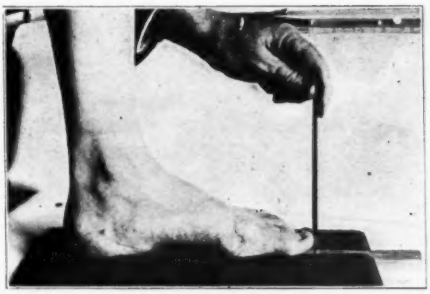


Fig. 2. Hold pedograph perpendicular when measuring feet.

retarded bone development, broken arches, weak feet, and the chain of debilitating conditions which are brought about by too short shoes.

Now we have yet an unsolved problem as to the width. Well, that is very much a matter of judgment and experience. Shoe clerks can easily supply their customers with short shoes; but, when it comes to getting them to wear tight shoes, that is another matter. In fact, tight shoes usually cause the feet to shout such alarm that wearers become very critical about the width. Selecting the width of the shoe, when the length is correct is an easy affair because the comfort of the wearer usually decides the matter.

The foot has been so neglected by the

Fig. 3. The length of the foot, plus the width of the nail joint of the thumb, is the length the shoe should be.

medical profession that all sorts of freak shoes have been advertised to *cure every* sort of foot ailment. Not taking any account of the postural defect, which might be the cause of the condition, this class of merchandise, provided your patient buys enough of it, is advertised as sure to *cure.*

I should be pleased to recommend any merchandise that can cure such debilitating

Fig. 4. From the center of the heel counter, on the inside the shoe, along the median line, to where the leather joins the sole at the toe, on the outside of the shoe. The notch indicated end of toe on inside of shoe and the additional space is for free forward and backward action of the foot.

conditions as found in some of the cases of ailing feet that I see. As for the shoes that these patients present, they have been the gamut. As for metal plates and arch supporters "warranted to cure", and too often "just what the doctor ordered", well, they are displayed in my office to illustrate that the patients really have sought relief.

However, I believe the medical profession is beginning to realize that the feet, and postural defects, are entitled to some degree of scientific consideration, if our people are not to degenerate to a nation of cripples.

In saying what is mentioned on this subject, it is not with any ill-feeling toward those who try to sell their merchandise. They are in business for just that purpose. However, I do feel that it is a bit recalcitrant in members of our profession to be so ignorant about such important conditions. Some shroud their putrid ignorance with a cloak of wounded dignity when asked to treat conditions presenting foot pathology. From the reports which come to my attention, the public is well informed as to just what that little peeved feeling indicates, and the patients drop the subject of which they may be better informed than the medical man.

This little rule for measuring shoes for feet, and feet for shoes, takes no consideration whatever of the number inside of the shoe. That number is to enable the clerk to replenish his stock; but, a pair of inside calipers, from my experience with many thousand pairs of shoes, will demonstrate the truth that, while figures can't lie, the other fellows can figure. As for putting them inside of shoes, well, the rod is safe. It seems sound judgment to put a foot which measures so many inches long into a shoe that will amply accommodate just that many inches of foot.

Concluding this paper, I will say that, if the sale of merchandise was effective in the treating of ailing feet, rebuilding broken arches, or even in the prevention of foot ailments and postural defects, I would not waste my time to place before the profession, and the public through the profession, what I have learned in studying this subject for a period of twenty-five years. As a standard and effective method of selecting shoes is an important principle, the rule detailed above is presented with the hope that it will prove useful.

Antiseptic Technic as an Aid in the Control of Sore Throat Following Tonsillectomy

By CHARLES C. MILLER, M. D., Chicago

IN times past when only a portion of the tonsil was removed, sore throat following operation was not very great. Patients frequently declared they had very little pain subsequent to operation. In those days, it was the custom to avoid injuring the plica and when this part was separated and pushed away from the tonsil before the top of this organ was cut away patients seldom missed a meal. So usual was freedom from pain that the development of a painful sore throat was attributed to faulty technic and older writers warned against wounding the plica or pillars.

With the development of ablation technics, all operators who have done throat surgery for twenty years or more are noticeably impressed with the change that has occurred in the convalescence from these operations.

With our first ablation work there was a tendency to attribute the increased pain to a lack of expedition, to the greater trauma of more thorough infiltration and to the more or less necessary mauling which occurred in so many of our early ablations. After a few such operations, the surgeon becomes impressed with the ease with which the capsule of the tonsil may be followed. This eliminates unnecessary trauma. No doubt, a good many operators, like the writer, have tried about all the methods of tonsillectomy advocated, large-

ly for the purpose of finding one which left the least painful state during convalescence. As a matter of fact, the various technics which are uniformly effective in securing all the organ have comparatively few advantages over each other. It is just about as easy to extirpate the organ with the scissors as with the snare, and the right kind of a knife is just about as good as either. With a well systematized technic, it makes little difference how we take out tonsils. So, too, the operator who studies results will be impressed that where the tonsillar fossa is thoroughly emptied, the soreness of the throat is just about as bad no matter what the method used. Three or four days of severe sore throat is worth missing and the operator should try to help his patient avoid it.

Years ago it was discovered that, when patients developed acute tonsillitis, the length of the attack and its severity could be greatly lessened by probing out the follicles thoroughly with strong antiseptics, such as phenol or iodine solutions. The shortening of these attacks by a single thorough swabbing of all crypts is very impressive. Most tonsillar infections are produced by the usual pyogenic organisms. So, too, following tonsillectomies, most of the severe sore throat is due to the development of infection after operation.

A little time taken to swab the throat immediately before operation and antiseptics properly used just as soon as the fossa is emptied will help to prevent pyogenic infections of the cavities left by the extirpation of the tonsils.

We all know that the follicles of the tonsils are usually chronically infected with various pathogenic organisms. We all know too that such secretions may not be reached with a gargle or by painting the tonsil. It is necessary to take a bent probe and pass it into the follicles to reach such secretions. Surgeons do not care to operate in septic fields in other parts of the body if they can help it. There is no need to do so in the throat. With a few properly bent probes wrapped with cotton saturated with strong antiseptics, it only takes a moment or two to search to the bottom of all visible follicles. It is the writer's belief that this should always be done. Probes used for this purpose should carry strong antispetics. The cotton on them should be wrapped tightly. The cotton should be saturated with the antiseptic and all excess squeezed off before operation.

Carbolic solutions, iodine, formalin or other strong antiseptics should be used. The writer is partial to a twenty percent solution of the official tincture of iodine. Carbolic should be used equally strong. Of course, there should be no excess of such strong solutions so that they will run all over the throat. Some probes should be fine and carry very little cotton so that they will pass into the follicles with strictured orifices. A probe should also be passed all about the tonsil so that any recesses containing infected material may be swabbed out.

When the tonsil has been probed, the surface may be wiped off with a comparatively strong antiseptic. In doing so, care should be taken to avoid any excess which might run down the throat and annoy the patient. When the tonsil has been extirpated, the fossa should be wiped out with an antispetic.

There is no harm from antiseptic gargles employed for a day or two or longer preceding operation. So, too, antiseptic gargles are useful after operation.

The writer has tried quite a few antiseptics. He shall not, of course, attempt to enumerate all that may be used.

Phenol solutions enjoy much favor with many operators. It is anesthetic as well as antiseptic. In glycerin solution, it may be used in from ten to twenty percent for swabbing follicles. As a gargle it should not be used strong enough to cause discomfort. Hot gargles of dilute phenol solution are very soothing to many sore throats. We know, too, that the agent is an effective antiseptic. Even more antiseptic are the solutions of iodine. Very dilute they, too, make excellent gargles. Promotion of epithelization is the most marked characteristic of iodine solutions. After a day or two subsequent to operation the writer believes that this is one of the most valuable agents for a gargle.

Some operators are always fearful of toxic effects from gargles. One of the agents which has not the disadvantage of toxicity is chinasol. This makes a very pleasant gargle. Heat does not cause it to deteriorate. A one to 1000 hot solution is a most effective antiseptic gargle. Stronger solutions may be used to swab the follicles.

While the writer does not pretend that his patients do not have sore throats following the removal of tonsils, he does believe that the sore throat is materially lessened and the healing is hastened. So, too he suspects that, some day, by such precautions he will avoid a dangerous septic infection if he has not already done so. Certainly there is no disadvantage in the use of antiseptics if they are sanely used.

Technic of Hemorrhoidal Operation

By CHARLES J. DRUECK, M. D., Chicago
Professor of Rectal Diseases, Post Graduate Hospital and Medical School

Preparation of the Patient

THE patient is to be as carefully and thoroughly prepared for a hemorrhoid operation as for a laparotomy, in order that we secure the best results and the greatest degree of postoperative comfort. This preparatory treatment is fully as important as the execution of the operation.

If a cathartic is deemed necessary, an ounce of castor oil is given, twenty-four hours before the operation, to sweep out septic and decomposing material from the intestines. This cathartic must be given long enough in advance of the operation to allow the patient to get rid of it and for the increased peristalsis to subside. If the patient already has been taking a cathartic daily, the physic, in some instances, may advantageously be omitted, thus avoiding exhausting him. Most patients do not eat much previous to the operation; still, some consider it a last chance for several days and, consequently, unless warned, will gorge themselves. Hence, I request the patient to abstain from meat, vegetables containing much cellulose and gas-forming foods and to subsist for the day before the operation on broths, cooked pulpy vegetables, and other readily absorbable foods. If the patient has been in the habit of using alcoholic liquors, he should be advised to discontinue their use for at least a week before the operation, as by doing so there will be less postoperative excitement.

The patient enters the hospital on the evening before the operation and, if restless, is given 20 grains of bromides, in order to insure sound sleep for the night. That same evening he is given an enema of physiologic salt solution and then is left undisturbed. Early on the morning of the operation, the perianal region is shaved and cleansed and a sterile dressing is applied. Three hours before the operation, the patient is given a one-pint enema. One and one-half hours before the operation, he is given a cup of soup or else coffee and toast, as it is better not to operate when his stomach is empty. He is given a hypodermic injection containing morphine 1/6 grain and scopolamine 1/150 grain, after which all visitors must leave the room. This hypodermic is repeated one-half hour before the operation and at this time the bladder is emptied if the patient is awake. This medication quiets the patient and prevents the psychic trauma.

The Operation in Detail

My operative technic is the same whether performed under local or general anesthesia, and, inasmuch as local anesthesia is safer and just as satisfactory as general anesthesia, the technic as performed under local anesthesia will be described.

If a local anesthesia is decided upon, a little extra detail is necessary in preparing our patient.

The table should be covered with a thick pad and the patient should be provided with a pillow to help make him comfortable. Always remember that he is not anesthetized and every sound and touch is appreciated by him. He should, therefore, be handled as little and as carefully as possible, not tied or strapped in any way; the left lateral prone position with the hips raised (the proctologic position) is satisfactory for the surgeon as well as the most comfortable for the patient, although when the patient is anesthetized the lithotomy position is more convenient. In this position the patient's legs are not fastened in stirrups but are supported at the knees upon the shoulder of the assistant. This method of support prevents the leg clamps and sacroiliac strain which is so often caused by other means of holding the patient.

I use one-half of one percent solution of apothesine or procaine for infiltration of the skin, thus permitting a liberal amount to be used without danger of toxicity, as apothesine is but one-seventh as toxic as cocaine. Quinine-urea solution is not used for the skin because its injection is painful. The success of a local anesthetic depends upon a careful and thorough infiltration of the whole field. I use a 26-gauge needle. A 30 Cc. syringe is filled with warmed anesthetic solution. The skin in the posterior raphé one inch back of the anal margin, where the skin is less sensitive, is touched with phenol on a swab and after waiting a few minutes the skin is picked up between the thumb and forefinger of the left hand and the needle introduced at the cauterized spot. A few drops of apothesine solution injected here causes a wheal to rise and, after waiting a few moments, the needle is advanced and another wheal made while the needle is carried forward just under the skin

at a distance of one-half inch from the anal opening. When the needle has been advanced its full length on one side, it is retracted to the posterior commissure but not withdrawn from the skin and the infiltration carried up

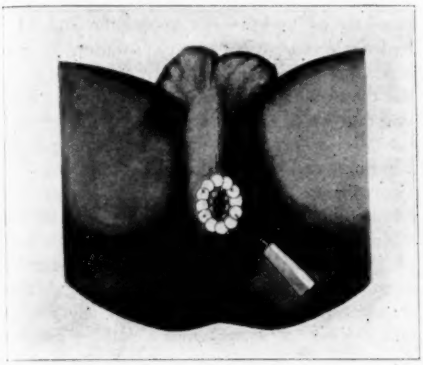


Fig. 1. Infiltration of the perianal tissues with the anesthetic solution.

on the other side of the anus. (Fig. 1.) When the full depth of the needle has been reached on both sides of the anus, it is withdrawn and inserted at the most anterior wheal just made and the infiltration continued to the anterior commissure and around on the opposite side until the wheals meet those previously produced. In this way the whole anal opening is anesthetized while the needle is always kept one-half inch out from the edge of the mucous membrane. This procedure blocks the inferior sphincteric nerves. Wait ten minutes

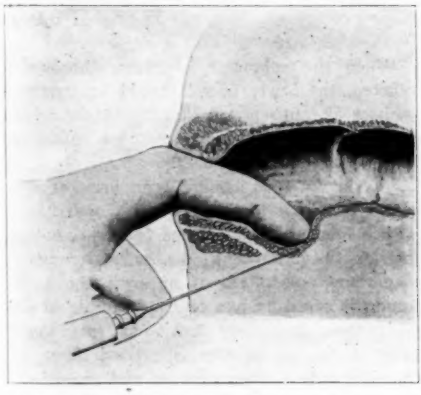


Fig. 2. Infiltration of the sphincter muscles.

for anesthesia to be complete and then introduce the left index finger into the rectum and carry it above the external sphincter, hook the finger over the muscle and, by slight traction, draw it down and steady it while the needle, passed through the skin at the anesthetized bullea, is carried into the sphincter muscle but not through it, and 20 minims of apothesine solution is deposited in the substance of the muscle. (Fig. 2.) This deep injection is made in four places, one on either side of the commissure, one-half inch out at the entrance of the lesser sphincter nerves. The index finger within the anus will assist in guiding the needle to the proper depth, and will be felt under the rectal wall. A 10 centimeter needle, long enough to easily reach all of the deep layers of the sphincter muscle, is required, as otherwise dilatation of those fibers will be painful and incomplete. As the needle is being carried down to the sphincter, the anesthetic solution should be slowly infiltrated so that some distention of the tissues will precede the needle point and avoid pain. (Fig. 3.)

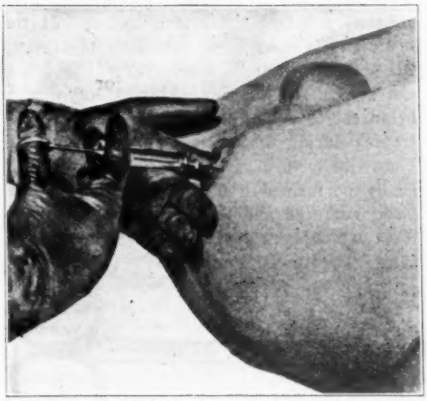


Fig. 3. Induction of Local Anesthesia. (Taken from Braun's Anesthesia.)

A syringeful of anesthetic fluid is now deposited immediately in front of the tip of the coccyx to block the coccygeal nerves and thus further facilitate dilatation. This infiltration procedure consumes 15 to 20 minutes and must be carried out carefully until anesthesia is complete. Then the finger within the rectum massages the sphincter and, if the muscle has been well injected, it will soon relax; but, if not sufficiently anesthetized, it will contract upon ("bite") the finger and we must wait longer. Never begin manipulating, pinching or operating until anesthesia is complete. This applies with equal force to local and general anesthesia. As the sphincter relaxes under the massage, a second finger of the same hand is introduced and, if needed, a finger of the

other hand, and the massaging and stretching continued until the capacity of the sphincter is reached. This maneuver must be carefully performed that the mucous membrane is not torn or the anal margin not otherwise damaged. Just what is the full limit of the sphincter varies with individuals and the op-

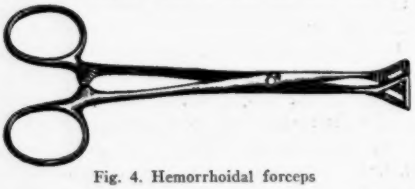


Fig. 4. Hemorrhoidal forceps

erator's experience is the criterion in each case. By this method, there is never any danger of rupturing the muscle as may occur under divulsion with the speculum. This slow but thorough dilatation of the sphincter is an essential factor in lessening the postoperative pain by avoiding sphincteric spasm. If the hemorrhoids have been habitually prolapsing, the sphincter will be found relaxed and will not need much dilating. Abscess following a hemorrhoid operation usually results from trauma during the dilatation of the sphincter (most likely to occur if the stretching is hurriedly performed), a perirectal blood vessel being ruptured and this resulting in a hematoma which later becomes infected and thus causes a perirectal abscess.

Fig. 5. Blunt-pointed enucleation scissors.

When the muscle has been thoroughly relaxed, it will so remain while we are operating. The hemorrhoids and the anal mucous membrane prolapse well into view under this treatment and the whole pile can be seen and reached. Although prolapsed internal hemorrhoids may be operated without dilatation of the sphincter, I always make this procedure part of my technic because, without it, there is very liable to be some part of the pile remain internal to the sphincter and will cause a recurrence at a future time. Therefore, if the hemorrhoid is within reach without dilatation, the sphincter should be stretched that all hidden nodules may be found. Also, if the stump retracts above a tight sphincter, a subsequent hemorrhage might not be detected for some time. Take plenty of time in making the dilatation because prolonged relaxation cannot be obtained if the stretching is roughly or hurriedly performed. Having opened the anus and brought the hemorrhoid well outside, it is now infiltrated with a solution of one-half of one percent of quinine and urea hydrochloride, using enough solution to distend the tumor thoroughly. The pedicle of the tumor should be injected and also the normal mucous membrane for one-half inch above the pile as otherwise traction on the pile in handling will cause pain by stretching the sympathetic nerves which come down the rectum from above. By waiting five to ten minutes now before operating, the best effect of the quinine is obtained and postoperative anesthesia is much more satisfactory. The anesthetizing solution should be slowly forced into the pile so as to avoid a sudden painful distention of the tissues. After the needle has been inserted, it may be turned in different directions and the tumor well infiltrated. If more than one puncture is made into the hemorrhoid the solution runs out as rapidly as it is injected. Sufficient fluid should be injected to blanch a part of the hemorrhoid. If several hemorrhoids are to be removed they are all injected at this time before the removal of any is begun. Quinine solution is used for this part of the infiltration because it produces anesthesia which lasts several days during which time healing is well established. The anesthetizing solution should be used in as limited amounts as will obtain the necessary results, because excessive quantities produce a large exudate which causes a sense of fulness in the rectum for several days.

When the sphincter has been thoroughly relaxed, the lower bowel should be irrigated with weak antiseptic solution and the whole operative field cleansed once more with soap and water.

The hemorrhoid having been brought well into view, it is picked up at its upper limit with a hemorrhoidal forceps (Fig. 4), and an incision, beginning in the normal mucous membrane one-fourth of an inch above the tumor, is carried down on the left side of the pile; then, beginning again at this upper point, a similar incision is carried down on the right side of the tumor, to and around the lower pole of the hemorrhoid; then with scissors curved on the flat, (Fig. 5), the whole pile, blood vessels and connective tissue are dissected out en masse. (Fig. 6.) The upper pole of the tumor is now lifted out of its

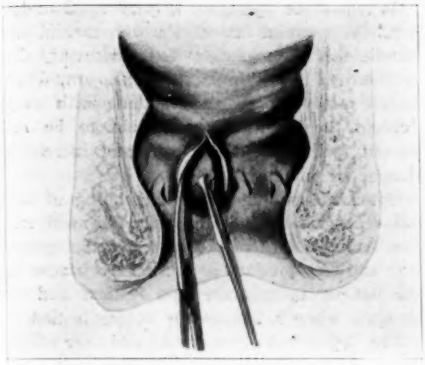


Fig. 6. Enucleation of the hemorrhoids.

base, thus exposing the vessels as they enter the tumor from above.

The vessels are now grasped with a thin clamp forceps (Fig. 7), and the tumor is cut free. The lateral incisions are to be kept close to the hemorrhoid, or, preferably, in that part of the mucosa covering the side walls of the pile. The dissection is carried around and beneath the hemorrhoids down to the solid connective tissue or fascia about the muscle coat of the gut, and the pile is shelled out by blunt dissection. This enucleation of the tumor is almost a bloodless operation.

Fig. 7. Curved thin clamp forceps.

The pedicle in the grasp of the forceps at the upper end of the wound next receives our attention. The size of this pedicle varies with the size of the hemorrhoid; still, even when the tumor is large and fleshy, the pedicle is slender, because it consists only of blood vessels and connective tissue supporting structures between them. The pedicle now is lifted well up and examined, in order to make sure that it is thoroughly freed from the mucous membrane; then a No. 1 catgut ligature is slowly but firmly tied close down at the base. One end of the ligature threaded upon a curved noncutting needle now is passed through the base of the stump beneath the ligature. The forceps and upper part of the stump are cut free about one-eighth of an inch above the ligature and the thread that transfixes the stump is tied over the stump and across the encircling ligature, thus preventing it from slipping. (Fig. 8.)

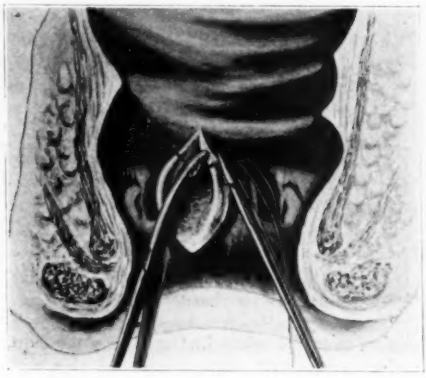


Fig. 8. Treatment of the hemorrhoidal stump.

As the stump is released, it retracts well into the bottom of the wound and the mucous membrane edges fall together over it. It is important to tie the stump carefully, as it is small and if not properly secured secondary hemorrhage may result. The wound edges fall together in good apposition; still, they should be secured by a light running suture.

The lateral incisions are to be kept close to, or better upon, the edges of the pile to conserve the mucous membrane between the several tumors and not endanger the caliber of the rectum or the anal canal by possible subsequent contraction. Those strips of attached mucous membrane left between each two operative wounds will also assist in rapid and satisfactory healing. If this work is poorly performed, stricture of the anus may result. Care must be exercised that none of the incisions extend beyond the anesthetized area. The hemorrhage during the operation is slight. The large vessels are not injured because they enter the hemorrhoid at its upper part and run parallel with the length of the bowel just under the mucous membrane. If a vessel is accidentally severed, it is an inferior hemorrhoidal vessel at the lower border and may be picked up and ligated separately or included later in the sutures approximating the wound edges.

If the tumor is in the anal canal, its lower edge may rest at the white line where the skin and mucous membrane meet; if the tumor is of the interno-external variety, it is to be removed completely, by continuing the dis-

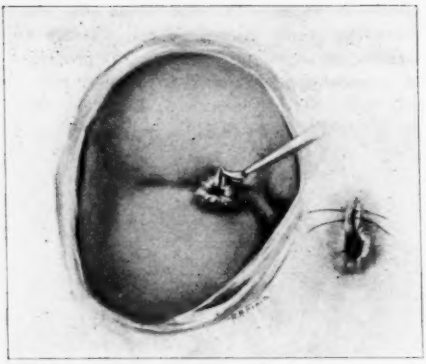


Fig. 9. Carrying the excision out on the skin to remove an externo-internal hemorrhoid. Small picture shows sutures placed to close the skin wound.

section over the white line and onto the skin, taking out a "V" shaped piece of skin and inflammatory tissue sufficient to restore the anus to its normal appearance. (Fig. 9.)

Usually, this external portion of the incision does not need to be drawn together with sutures as the edges of the wound will fall together and coapt themselves; but, occasionally they may gape and will require one or two interrupted catgut sutures. When dissecting out the hemorrhoid, be sure to leave a clean-cut, smooth-surfaced wound because a ragged wound is more liable to bleed.

The shape, size and location of the operative wound for each hemorrhoid is governed entirely by the condition of the hemorrhoid itself. A straight elliptical, oval, kite-shaped or dumbbell wound may be employed, all depending upon the amount of pathology to be removed. One should always figure on preserving as much mucous membrane as should normally line the anorectal canal in the region operated. One hemorrhoid may require the removal of a large amount of mucosa in its excision, while another may be completely excised by submucous removal through a straight slit in the mucosa.

In finishing the operation, a careful survey should be made of the anus to see that no redundency of the skin or skin tabs are left. If these are found, they should be clipped off with scissors. If these tabs are left, they swell up after the operation and cause the patient much suffering during convalescence and annoyance afterwards. The operation need not be hurried as the anesthesia will last upwards of an hour and the utmost care and gentleness should be exercised in the use of tissue forceps, retractors and sponging.

Whether the operation is performed under local or general anesthesia, be careful to handle the parts gently; for unnecessary dilatation of the sphincter, as also rapid or rough manipulations and catching with snap forceps the tissues that are not to be removed, will cause more pain and increased danger of infection.

Often the pulling and manipulating of the adjacent parts during the operation will excite fear and lack of confidence in the operation and may produce so much nervousness in the patient as to make him restless and to struggle when a ligature or suture is tied.

The operation completed and the field cleansed, the rectum and anus are well covered with sterile vaseline, carefully and freely covering each and every wound. A large compress, wet with hot boric solution, is applied to the anus and this is held in place with a snugly adjusted two-tailed "T" bandage.

I do not place a tube within the rectum because, if hemostasis has been secured properly and the sphincter well relaxed by anesthesia, drainage as well as absence of postoperative pain will be well insured. The presence of packing and tubes acts the same as any foreign body and provokes and induces peristaltic efforts in an endeavor to expel them. Their presence is also an active factor toward causing retention of urine.

When the patient is put to bed, keep him in the Sims', or else in a prone (on his face), position. Do not allow him to lie on his back, because, in this position, the middle and superior hemorrhoidal vessels in their upper portion are in a vertical position; at the pelvic brim, they bend a sharp angle, so that the abdominal contents are superimposed. All of these positions cause obstruction, and as the hemorrhoidal vessels have no valves, there is a back pressure and a tendency to swelling, a giving away of the stitches and more pain, as well as delay in the process of repair.

External heat is applied to the boric dressing over the anus to keep it continuously warm. The dressing is changed every six hours. After the first day in bed, our patient may turn about and assume a comfortable position.

After-Treatment

The after-treatment of hemorrhoid patients is a very exact one; but, unfortunately, often it is neglected, with the result that complications frequently occur. Close attention at this time means comparative comfort and a rapid convalescence for the patient and more kindly healing of the wounds without complications.

Although general standard rules for the postoperative care cannot be set down, there is much to be individualized in each case. In fact, it is most important that the physician himself should look after his patients, so far as this is possible; for, just a little slip in the after-treatment may spoil the effect of an otherwise excellent operation.

A narcotic is only very rarely asked for, but morphine sulphate, ¼ grain, should be promptly given hypodermically if required. It is never needed after the first night. No drugs should be given to inhibit (lock up) the bowels.

The possibility of retention of urine should always be watched for. This is more apt to occur in male patients and demands catheterization as soon as the bladder fills. This complication is not nearly so frequent with the operative toilet I have suggested as when the anal canal is packed.

After twenty-four hours, the dressings are removed, the region washed carefully and fresh dressings applied. After this, the anal region is given a hot cleansing bath, twice daily, and also after each bowel movement.

These patients expect defecation to cause pain and I presume that their fear acts as an inhibition to evacuation. So, at the end of the second day, I give an injection of 6 ounces of liquid paraffin, using a soft catheter and let the patient use a commode instead of the bed-pan. Each day thereafter, he is given an enema of physiologic salt solution, or of glycerin, 2 ounces, and water 6 ounces. This prevents the evacuation of a constipated stool. The danger of mechanical injury by the expulsion of a large hard fecal bolus requires no emphasis. Wet absorbent cotton is employed as a detergent after each evacuation. Each day as the wound is dressed the healing is noted and any granulating surfaces found are touched with a 20-percent solution of argyrol. The patient is usually allowed to leave his bed after the second day and leaves the hospital in 4 to 6 days, according as he resides near or distant from the surgeon, because the anus should be dressed every day for at least a week.

The postoperative diet for the first day consists of liquids given every two hours; soup, broth, egg albumen, buttermilk and cream, 4 ounces of either, with 2 ounces of water. No milk is allowed. On the second day, he may have semisolids; poached egg, toast, custard rice, sago, absorbable vegetables, also cooked apple, prunes or other fruit, besides for beverages, tea, coffee, grape juice, lemonade and orangeade. After this, a more generous but still limited diet is allowed.

With the technic outlined the patient can be on his feet and out of doors as early as the second day and certainly by the fourth or fifth. Confinement to bed and detention from business is minimized and recovery hastened by the improved circulation which follows the early resumption of exercise and normal life.

When the patient leaves the hospital, his hemorrhoids are cured; however, in many cases, there still remains the effect of long continued disturbed digestion. Therefore, the patient should be impressed with the importance of the after-treatment, and should receive either direct or at the hands of his home physician whatever directions regarding his diet and medication may be necessary.

I never use bichloride of mercury during the operation, nor in any of the after dressings, because this irritant sets up a persisting tenesmus as soon as the sensory nerves recover.

Until a complete cure is effected, the finger protected and well lubricated is introduced weekly into the anal canal to ascertain that no postoperative contraction has resulted.

The Advantages of This Technic

1.—The operation is thorough and may be equally satisfactorily performed under local or general anesthesia. The incised wounds, if carefully coapted, heal more readily than will crushed or cauterized surfaces.

2.—The sphincter muscles are not disturbed or injured by forcible dilatation, since a speculum is not employed.

3.—The ligature is so applied as to hold securely the vessels so that secondary hemorrhage cannot occur; neither is there any sloughing tissue to separate several days later. Provision for perfect hemostasis is a vital consideration in all operations upon internal hemorrhoids.

4.—The stump is small and buried, and the wound edges are closely approximated, so that the resulting scar is smooth and level with the surrounding mucosa, instead of being raised; consequently, it does not obstruct the passage of the feces. It is this raised hard scar left after operation for the removal of hemorrhoids that more than any other single factor tends to induce a recurrence of the trouble.

5.—All of the diseased tissue is removed; therefore, recurrence is impossible; yet, enough of the mucosa is left to maintain in

good order the tactile sensibility of the anus. This is one of the points of superiority over a clamp and cautery method of operation, which necessarily must grasp much tissue outside of the hemorrhoid or else leave part of the varix behind. If a portion of the varicosed vein remains, infection and an abscess is prone to occur.

6.—The scar of the wound conforms to the axis of the anal canal, thus, cannot narrow the lumen of the gut.

7.—The postoperative analgesia continues for several days, while the patient is up and out in a few days.

30 N. Michigan Blvd.

Unusual Cases Encountered in My Forty Years of Experience

By J. H. LOWREY, M. D., Neola, Iowa

JUST forty years ago, a distant relative of mine, living in California, was reported critically ill. His brother was summoned, supposedly to be present at his obsequies. Two years previously, he had awakened one night apparently strangling and he very nearly died. The cause was not only a mystery to the family but to the doctor who had been called. However, in a couple of hours, he had recovered from his distressing paroxysm. He fell asleep; the next morning, awaking with some dyspnea, but otherwise feeling well. From this hour he developed a cough seemingly of a spasmodic nature which grew gradually worse. With his increasing cough, there developed periodical fever and night sweats. During the two years, he had consulted thirteen different doctors with only palliative relief. His condition was diagnosed as tuberculosis with a fatal prognosis. He gradually lost flesh and, finally, became bed-fast. There was a daily rise of temperature and the expectoration contained an abundance of pustular sputa. One night, about bedtime, during an unusual spell of coughing, he coughed up something which rattled as it fell to the floor. He called the family in to search the floor for the "bullet" which must have gotten into his lungs. Archie was a Civil-War veteran and drawing a goodly pension. What do you suppose they found? Two artificial teeth, which, the morning following the paroxysm of coughing, they failed to find in the customary glass, where he was in the habit of placing them on retiring. These teeth had become detached, had momentarily lodged in his wind-pipe (trachea) and finally passed into his right bronchi and lodged there. It is needless to remark that Archie rapidly recovered and lived for many years; in fact, his brother, who went to visit him, died years before Archie passed away.

Now, contrast this case with the following:

A little girl, three years old, was brought to me, with the history as given solely by the child, that she had swallowed a whistle. I ascertained that she had not partaken of food or water for three days. She complained of considerable pain in the lower end of the esophagus; was running a temperature of 103.5° F. and looked the image of distress. I immediately rushed her to a specialist. With the aid of the x-ray and able assistants, the foreign metal body was located near the esophageal opening into the stomach. Under an anesthetic, an instrument was passed down the esophagus and, fortunately, engaged the end of the whistle and it was skilfully extracted. If a case like No. 1 occurred today, the x-ray would locate it and the surgeon would boldly go into the chest and remove the foreign body.

A Cranial Operation in Country Practice

Considerably over a quarter of a century ago, I was called one evening, about 9 o'clock, to a patient, living south of an adjacent town, with the report that Frank had been kicked in the head by a horse and he was seriously hurt, and for me to come as soon as possible.

Hastily mobilizing such instruments as I might need, my sterilizer and five gallons of distilled water, I arrived there about 10 p. m. The man had been kicked by an "outlaw" horse, just above the supraorbital ridge of the left frontal region and the frontal and temporal bones had been crushed like an egg-shell into numerous fragments and driven backwards into the brain. One of the local doctors had also been called.

A problem: To do an extensive operation—a craniectomy at night, with but two oil-lamps and a couple of women to hold them—no assistants and just the old doctor to give the anesthetic. You gentlemen, working un-

der the illumination of 1000 candle-power electric light, with three to five assistants and four or five nurses, with all kinds of surgical equipment, have no conception of what the pioneer surgeon was up against.

I did not hesitate one minute. I placed all my instruments in a home-made sterilizer on the kitchen stove, and with a brisk fire, they were soon sterilized. We then extended the dining-room table; placed upon it several comforters and over them some oil-cloth sheeting which I usually carried with me. I then scrubbed up (I always carried my own pans with me) antiseptically; no rubber gloves in those days. I then scrubbed up the patient, likewise antiseptically, and shaved his scalp around the region of traumatism. I then bathed all the parts in a strong antiseptic solution. The anesthetic mask was also rendered sterile. The anesthetic was then started, chloroform being used and the usual precautions being taken. Then, the whole field of operation was rendered sterile. I bathed my hand and arms in a solution of carbolic acid which was strong enough to numb the skin.

I made an elliptic incision, avoiding the supraorbital nerve, just above the arch, and curved backwards, possible five inches in length dissecting back the integument and pericranium. I encountered no trouble in removing the cranial fragments and, as I did so, I fitted each fragment together. I detached and extracted all the depressed bone, inner and outer table. Then, with my finger, I searched for the smaller fragments inside the cranium and removed these. The brain on that side had lost its resiliency but the dura was punctured in but one place. I ligated three meningeal vessels and sutured the dura.

I packed the cavity with sterile gauze, an inch wide and a yard or so in length. I then placed each fragment of bone in its proper place, rebuilding the frontal and temporal region and leaving a small opening just above the orbital ridge, through which the proximal end of the gauze was brought and secured. I quilted the periostium, joining the serrated edges of the fragments, and finally sutured the pericranium and integument. I withdrew the strand of gauze in 36 hours, as all hemorrhage had ceased.

The patient made an uneventful recovery and only on the following day had a half degree of fever, which was down to normal the next day. He suffered no pain or headache. His mental faculties soon cleared and he has never had any complications as the result of this injury.

Meeting several Germans in this village, the third trip, I was halted with this query:

"Vas dat so, dot Frank B. had his heat all smashed in?"

"Yes", I replied, "the left side of his head was crushed."

"Vell, does he knows somting?"

"Yes, he is conscious."

"Vell, you tink he gets vell?"

"Yes, I believe he will."

"And he got no pain?"

"No".

"Vell by golly, he got no brains on dat side from his heat."

When I operated on Frank, he weighed 130 pounds. I met him two years ago, just 25 years after the experience herein related, and he weighed 240 pounds. I didn't know him nor did he recognize me. There is a slight depression on his forehead, where the opening was left and sutured the evening of the second day, after I withdrew the strand of gauze. He has been living in Omaha these intervening years.

Case of Puerpural Convulsions

About the worst nerve-racking experience I ever encountered occurred about that same time. In those early days, many women had babies without calling a doctor. In fact, the Widow Pilling, who ministered to most of the women in "No Man's Land", west of town, during their confinements was a guardian angel, and I will always believe that God Almighty took care of her work. About 14 miles from town and terribly cold, I arrived just about 5 p. m. and the roads—well, there weren't any. Three neighbor women, the father and husband of the pregnant woman and Mrs. Pilling were there. The sick woman was bordering on puerpural convulsions. Her limbs, vulva and face were bloated hideously. Her kidneys were blocked. Catheterization brought no urine. I warned all of the impending danger and emphasized the necessity of immediate action, but the family objected to instruments. They wanted counsel. I said, "Summon counsel; but, before aid can arrive, this woman will be in convulsions and, if I am not given authority to exercise my judgment and to do the things indicated, you may hitch up my team and I shall go home. I am not going to remain here and see this woman die and then have you tell how I sat around and did nothing! I want your decision in five minutes!"

They then consented. Placing the patient in the lithotomy position, the women holding

her limbs, I proceeded to give the anesthetic and when she was sufficiently under its influence, I turned it over to Mrs. Pilling and quickly introduced my forceps. The first traction brought on a most appalling convulsion and the thrust of the lower limbs threw both women to the floor and, screaming and crying, they fled outdoors, men and women. I held her limbs, but I had Mrs. Pilling come around to hold them while I took charge of the anesthetic, substituting chloroform. I soon had her relaxed. I then gave the men and women a good cussing and called them back into the room to assist.

In fifteen minutes I had the squawking youngster—the first baby. In detaching the placenta, I found an hour-glass contraction and, forcing my hand into the womb, I provoked another convulsion; but a little more chloroform soon subdued it. Well, we got through nicely. I placed this woman on jaborandi, 20 drops every two hours, and hot packs over the kidneys, which started kidney action. Apium virus for the edema; veratrum viride (Norwood's tincture) and chloral hydrate to control the convulsions, four of which she had after delivery. She made a good recovery and has had seven children since—all normal.

More Obstetrical Cases

In obstetrics, I have encountered every complication recorded in every and all works on that subject. The death of a pious little woman, the other day, in northern Iowa, recalled to mind the perplexing situation she was in one night, about 9 o'clock. This was thirty-eight years ago and they lived in a farm cottage, just two miles south of town. In those early days, it was not uncommon for some neighbor woman to attend cases of labor, especially if they had assisted at several cases of confinement. Such was the case with this good little woman. As I entered the house, Mrs. L. greeted me with the cheerful news, "The baby is already here; but, Doctor, the after-birth hasn't come and there is something there; I don't know what it is".

I scrubbed up and investigated. I found the uterus completely inverted, the placenta still attached. There was virtually no hemorrhage. There was pronounced shock and considerable pain. Procuring my vector, which had on it a large, smooth, round handle, I immersed it in a carbolic acid solution, covered it with gauze or cheese-cloth, and placed it within easy reach. The woman held the lamp; I grasped the uterus between my two hands and, by forcible compression, forced what blood I could back into the body. Then, holding the part with my left hand, I used the devised repositor and experienced little difficulty in replacing the womb. I then peeled off the after-birth and a dose of ergot did the rest. I ascertained Mrs. L. had pulled on the cord to detach the after-birth. She detached the cord, however, and added to my anxiety.

Some five years ago, I attended a normal case of confinement, a Mrs. N., about 26 years of age. The striking feature of her case was that she had no labor pains. I have had several cases with this anomaly and they always were prone to postpartum hemorrhage. But a large dose of ergot prevented trouble. About two weeks afterwards, I received an urgent call, about 2 o'clock in the morning, to come as soon as possible. I found the woman had had a secondary postpartum hemorrhage. She had awakened, the blood pouring from the relaxed womb. Her womb was full of coagula. I emptied it, had the husband hold it firmly, shot in a dose of pituitrin and injected some vinegar into the womb. She was certainly exsanguinated, but made a good recovery.

Some eighteen years ago, I was called in consultation with a beastly drunken doctor. They had also summoned a midwife, whom I had pushed into service. I found the parturient woman had about bled to death. Beneath and underneath the mattress, there was a large pool of blood. There was a shoulder presentation. I tamponed, gave sufficient anesthesia, turned the child and quickly delivered it. Then I expelled the placenta. I gave a shot of hypodermic ergot. The hemorrhage was due to a partial detachment of the afterbirth in the doctor's crude effort to turn the child. She didn't bleed an ounce after I got to work, nor afterwards. She died in a couple of hours. The child was still-born.

Thirty-nine years ago, Dr. H., who has been practicing in Chicago for many years, and myself attended a case about 14 miles west of town. It was a shoulder presentation and a protruding arm, besides a prolapsed cord. The child was dead, of course, due to the compression of the cord. There was but one thing to do and that was to turn the child. I recall that the child weighed 18 pounds. This was the most laborious and tedious job I have ever undertaken. There was no hemorrhage before or after delivery and no intrauterine hemorrhage. I was scrubbing up, and the doctor and I were discussing the extraordinary features of her case, when one of the women

announced that the patient was breathing with difficulty. We both examined her quickly, but not a sign of hemorrhage. In a few minutes, her features blanched; she struggled and gasped for breath and, notwithstanding our hypos of nitroglycerin and strychnine and other measures which we quickly adopted, she was dead in ten minutes. This woman died from embolism, the clot either lodging in her brain or heart.

These are some of the deplorable and distressing features attending the practice of medicine. We brought into requisition all the knowledge we possessed and, yet, without avail. And there were left seven motherless children, who needed this woman's care and guidance. These are the things that make us wonder why we were created and why all this travail and suffering is imposed upon the human family. What is the object of life, if it consists only of toil and tribulation? Is it the hope of a better day that springs from the human heart and urges us onward and upward in the belief that, sometime, we may be in a position to enjoy the fruits of life's labors? The higher the state of civilization, the more apparent are the perplexities of life. Talmage once remarked, in his opening address, that theologians for centuries have been trying to cipher from whence we came and whither we are going; but, friends, about all we know is that we are here.

Modern Methods for the Evaluation of Antisyphilitic Remedies

By GEORGE W. RAIZISS, Ph. D., Philadelphia, Pennsylvania

NUMEROUS new remedies for the treatment of syphilis have been suggested of late, both in this country and abroad. Indeed, so large has their number become that there is considerable confusion in the minds of syphilologists as to the remedy of choice. To appreciate the difficulties involved in the evaluation of remedies, one need but recall that the question of the comparative value of arsphenamine and neoarsphenamine has not been definitely decided; and, yet, these two drugs have been in use for the past six years. While neoarsphenamine is being used much more extensively than arsphenamine, some syphilologists are still of the opinion that the latter produces more lasting curative effects.

Another derivative of arsphenamine, known in France as "sulfarsenol" and in this country as "sulpharsphenamine", has attracted considerable attention and is now under consideration as a remedy for intramuscular injections as well as an added weapon for the treatment of neurosyphilis.

A pentavalent compound which aroused much interest in this country is a derivative of arsanilic acid, discovered in 1915 by Jacobs and Heidelberger.[1] Chemically it is phenylglycineamide-4-arsonic acid, to which the name "Tryparsamide" has been given. It is of very low toxicity and can be administered intravenously to adults in doses of 3 to 5 Grams. It is claimed by some that tryparsamide produces beneficial effects in the treatment of neurosyphilis.

The armamentarium of the syphilologist has recently been further enriched by various organic compounds of bismuth and mercury. Because the criterion of curability of human syphilis is still under discussion, it is difficult to form a proper estimate of any new remedy; to know whether it is of sufficient value to be used in preference to or alongside of the standard remedies—arsphenamine and neoarsphenamine. A few years ago, any remedy which had the merit of exerting a favorable influence on local lesions, causing their disappearance in a short period of time, was looked upon as a curative agent of value. But, as the knowledge of syphilis progressed, this criterion became entirely insufficient—the change of positive blood Wassermann to negative becoming the first prerequisite of a successful course of treatment—and now even this criterion is no longer sufficient. Since it has been discovered that generalization of a syphilitic infection in the human body is rapid and with frequent involvement of the nervous system, a negative blood Wassermann is no longer a sufficient indication of the successful end of treatment. In addition to a negative blood Wassermann the spinal fluid must be found normal before pronouncing the patient more or less safe from the dangers of a progressing infection. It is further realized that indications of infection, once checked, must continue so for several years before the patient can be considered more or less permanently free from spirochetes.

In view of the foregoing, the clinical evaluation of anti-syphilitic agents is a long and difficult procedure. It led those engaged in chemotherapy to look for definite and sure methods of determining the value of new chemical compounds in an experimental way. But, here, too, due to recent scientific developments in the experimental field, requirements changed, tending to rise to a higher and higher standard of accuracy. In order to gain knowledge of the therapeutic efficiency of arsphenamine, Ehrlich and his collaborators not only utilized the spirochete itself but organisms related to it.

Thus, various types of trypanosomes were used, as well as the spirochete of relapsing fever in mice and rats, and chicken spirillosis in fowls. Schamberg, Kolmer and I[3] suggested trypanosoma equiperdum as the test parasite for the routine testing of organic arsenical compounds, particularly those of the arsphenamine group. The use of definite numbers of these trypanosomes for the infection of animals gave precise results and permitted conclusions as to the therapeutic efficiency of drugs to be drawn in the comparatively short time of two to three weeks. The method, as modified by Voegtlin and Miller,[3] is now eligible for practical experimental evaluation of curative agents. That a close relationship exists between the results obtained by this method and those observed clinically in syphilis, has been established by the same workers and confirmed by Voegtlin and Miller,[4] who stated that "every arsenical which was shown to be efficient in the treatment of rabbit and human syphilis was also shown to possess a high efficiency by means of the trypanocidal tests, and vice versa".

In spite of valuable results obtained by the use of the trypanosomiasis test, there was always a desire to obtain further and deeper insight into the workings of an antisyphilitic remedy by the use of the invading organism itself, i. e., treponema pallidum. Ehrlich and Hata[5] were the first to develop the testing of therapeutic agents in experimental rabbit syphilis. The rabbits are inoculated in both testicles with an emulsion containing spirochetes. After a few weeks the testicles usually become considerably enlarged and indurated, often giving the appearance of a typical primary effect. After the intravenous or intramuscular injections of chemical compounds, observations are made as to the disappearance of treponemata from the lesions and finally the healing of the lesion itself. The rapidity of the disappearance of spirochetes and complete cicatrization of the scrotal chancres was the criterion of curative effect employed by Ehrlich and his co-workers.

While important results were obtained by Ehrlich, the inadequacy of this criterion of cure soon became apparent. Kuznitsky, Neisser[6] and others used the reinoculation method in order to determine the cure of syphilis in animals. The method was based on the general belief that patients or animals infected with syphilis can not be reinfected until freed entirely from the first infection. This observation, which is clinical in origin, became the basis of experimental work on animals. When reinoculation was found to be successful, the animal was considered cured. If reinoculation was found to be a failure, the animal was looked upon as still harboring spirochetes. However, this method of determining the curability in experimental syphilis was found unreliable by Uhlenhuth and Mulzer[7].

Neisser verified his reinoculation method by inoculating normal animals with emulsions of internal organs of syphilitic animals. If living spirochetes were present in the emulsion, they would develop in the normal animal.

This direct evidence of the presence of living spirochetes in the infected animal has been utilized by Pearce and Brown[8] in their method of inoculation of syphilitic lymph-node emulsions into fresh animals. The basis for this method is the observation that the spirochete of syphilis in rabbits has a tendency to localize in the lymphoid tissues. The method of lymph-node transfer became a valuable criterion for the determination of the presence or absence of infection when living spirochetes could not be observed microscopically, and lesions became completely healed. Thus an important step forward was made in solving the question whether a given chemical compound is merely capable of extinguishing the visible signs of a syphilitic infection or it is powerful enough to eradicate the infection completely. We know now that many new remedies can only do the first, and very few can do the second. Kolle, by the use of the old reinoculation test in experimental rabbit syphilis, arrives at some interesting conclusions, the most important of which is that an infection more than forty-five days old can seldom be cured even by the use of very large doses of arsphenamine—doses much higher than those which can be safely used in the treatment of patients. Furthermore, he finds that even infections of very short duration

are occasionally refractory to massive doses (2/3 of maximum tolerated dose) of arsphenamine. His finding, so disappointing to those who have faith in the curative power of arsphenamine, must be questioned in the light of the new criterion of cure, based on lymph-node transfer. Alan M. Chesney et al. according to a recent article, found that a few moderate doses of arsphenamine were sufficient to eliminate an old existing syphilitic infection in rabbits, as judged by lymph-node transfer. Even if the infection had been present as long as 127 days before treatment began, it could be abolished completely. It is hoped that this important question of the curability of experimental rabbit syphilis will receive further study and that more definite criteria will be established.

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The Prognosis of Typhus Fever

By SOLOMON R. KAGAN, M. D., Boston

Formerly Chief of the Zemstov Hospital in Crimea and Government Physician in Typhus Districts of Rostov on the Don

DURING the years from 1917 to 1921, the writer had an opportunity to observe 2325 cases of typhus fever, in and out of hospitals in Russia, upon which the following study is based.

The outlook in typhus is very grave in cardiac diseases with broken compensation, and likewise in typhus nervosus (encephalitis). The course is moderate when the petechial rash is faint, and is usually mild in children. The mortality in adults was 5 percent in private practice, 8 percent in hospital practice, and 1 percent in children. The mortality among physicians afflicted with the disease was as high as 24 percent. In most cases death occurred during the second week. There were some patients who died during convalescence.

It is noteworthy that among the physicians the mortality from typhus was higher and the complication more serious. According to the official statistics of Dr. A. Sisin 3209 military physicians were affected with typhus from January, 1918, to June, 1920, i. e., 41 percent of the total military doctors. Of these 722 died—a mortality rate of 18.4 percent, while the mortality among the lay-patients was only 8 percent in the cities and still less in the rural districts. Professor Abramoff states that during the war 20 percent of the medical staff of the Red Army died of typhus. During 1919 and 1920, out of 1841 physicians 1096 succumbed to typhus, or 59.5 percent. This fact is in accord with the statistics in Ireland. Out of the 1230 physicians attached to institutions and taken ill with this disease 550 succumbed to it!

Some believe that this condition is due to the diminished resistance of the physician on account of fatigue and overwork during the epidemics. I do not believe that this explanation is correct. Most of the physicians who died of typhus were from 28 to 40 years of age, having enjoyed good health. A special medical committee examined them before they were appointed to the hospital. Hence, in the hospitals served, only such physicians were assigned as had had typhus or were free from heart, lung or kidney trouble. In private practice the majority of old physicians, or those in poor health refused to treat typhus fever cases, referring them to the "immune" physicians.

I believe that the high mortality among physicians may be explained in the following manner: .The virus of typhus demands a favorable environment for its activity. It is known that typhus fever prevails mostly in the winter and spring, losing part of its virulence in summer and fall. The virus is active only for a certain period of about eighteen days. Its activity is increased from the fourth to the thirteenth day. Five or six days after the crisis the blood of the patient is no longer infectious. From the hospital for typhus, very often on account of lack of space, the patients were discharged on the eighteenth day of the illness, and there was never a socalled "carrier", i. e., they no longer infected anyone else.[1] My observation in private cases confirmed this fact. Usually five days after the crisis, association with the patient followed by proper disinfection never proved contagious, if they did not contract the disease before disinfection. The virus in the louse is also active for a definite time and exhibits different degrees of virulence, depending upon

length of time it has been in the body of its host and upon the stage of the disease at which the virus has been transmitted from the infected person to the louse as: during invasion, fastigium, defervescence or 2 to 5 days after crisis. Recent virus is more active. Old virus is weaker and after a while loses its activity entirely. This opinion is based on the following observations:

1. There is a marked difference in the clinical course of typhus: the onset is sometimes gradual and the temperature drops by lysis; the crisis is in some instances mild and early on the ninth or tenth day; the eruption may be very slight or absent. Marzinovsky observed 35 cases of typhus without rash but with a typical temperature and other clinical characteristics, and with a positive Weil-Felix's reaction.[2] Such contrasts in intensity and form of the disease may well be explained by supposing that the respective infecting organisms are of different degrees of virulence, such as the young and powerful virus or the old attenuated one.

2. The clinical symptoms and the pathologic morphology are marked from the fifth to the fourteenth day. Weil-Felix reaction is more marked during the same time, during which the virus reached its maximum intensity.

3. The mortality is high among physicians, nurses and persons who attend early cases. The fastigial stage usually demand frequent examinations and careful attention. In that way the medical personnel often is affected during this stage when the virus reaches its highest virulence. For example: My patient Dr. P., thirty-three years old, in excellent health was bitten by a louse when he was attending a typhus case of 6 days' duration. Although it was a mild form of typhus, the attending physician nevertheless contracted the disease 12 days afterwards, with a rather sudden onset and early prostration. The eruption appeared on the fourth day—also symptoms of meningitis. Death occurred on the fifth day. The writer was also bitten by a louse from one of his patients on the tenth day of the illness. The patient being only mildly afflicted recovered rapidly but the writer had a very severe form, being confined to bed for three months with a complication of thrombophlebitis.

4. At one time I treated nine patients afflicted with typhus who were confined to one of a certain type of institution. They were poor refugees. They lay on the floor, the blankets and mattresses were filthy and full of lice. Their children were temporarily separated from them. After recovery they did not have any disinfection. (The local Russian board of health did not enforce this rule), Later the children used the infected clothing and mattresses, but they did not contract the disease. This and many other similiar cases may be explained on the ground that the virus was attenuated by that time and, therefore, nonactive.

References

[1]Report from the Vladimir Children's Hospital.

[2]This consists in the agglutination of bacillus proteus X_{19} (Weil-Felix bacillus) obtained from the urine of patients with typhus. A titration of 1-50 (macroscopic) is considered diagnostic. The titration is 1:200, sometimes 1:1000, increasing with the progress of the disease. Friedberg supposed that the reaction is specific for typhus and that bacillus proteus X_{19} is also an etiological factor. (Aristovsky: "Vaccine Experiments in Typhus Fever," pp. 267-269, 1920, Moscow.)

See, also, Osler, W.: "The Principles and Practice of Medicine", p. 48, 1920.

Surgical Seminar

Conducted by GUSTAVUS M. BLECH

A Card of Thanks

MANY replies have come in to me since my appeal in the September and October issues for an expression of opinions relative to the future of the Seminar. The mail brings daily a few more and I can not, at this writing, say how many are actually behind the seminaristic idea; but enough information has reached me to enable me to plan something definite.

So far, the expressions have been in favor of the method of case discussion. The only suggestion that has come to me is to add minor surgical problems, such as are encountered by the every-day general practitioner. I think I can not be accused of having ignored this phase entirely.

So far, about three hundred have sent me their names and assurances. Some have gone to the trouble of writing me long letters. I shall answer them as soon as possible by mail. Meantime, let this be a card of thanks to all who have been kind enough to support my feeble earnest efforts.

Doctor Hamner's Case 1

This problem was published in the September issue. It is essentially as follows:

A boy, about 14 years old, has not voided urine for twelve hours and suffers a good deal of pain.

The past history reveals nothing noteworthy except that six years ago he sustained a slight trauma in the right inguinal region, which resulted in an abscess that subsided without incision.

Two days ago, the patient began to complain of pain and tenderness in the region of the bladder. Examination reveals temperature of 101° F.; pulse 130, regular in rhythm; respiration 20.

There is swelling of the abdomen, tenderness over bladder, nausea and vomiting and inability to void urine. What urine was obtained contains albumin and many pus cells.

Discussion by General Geo. Acheson, Kingston, N. B., Canada

About a year and a half ago, I had a boy with symptoms almost identical with this case. No urine, except a few drops, had been passed for 24 hours, and the patient was in great distress.

Examination showed a marked degree of phimosis, with contracted, adherent and inflamed prepuce. The small part of the glans and meatus visible within the preputial opening, was swollen, inflamed and intensely tender. I catheterized him under general anesthesia and then applied a moist antiseptic dressing to the penis. He was able during the following 24 hours to pass a few drops of urine at intervals. At the end of that period, it was again necessary to pass the catheter.

The next day, I performed circumcision, after which there was no recurrence of the trouble.

Discussion by Dr. I. E. Crack, Hamilton, Ont., Can.

This case is very interesting but difficult to diagnose from the information presented. "The boy has not passed urine for 12 hours and is in great pain." Is he in pain from a distended bladder, or has he a reflex anuria with bladder irritation due to a pyelitis or pyelocystitis? The kidney regions should have been palpated to ascertain whether there is tenderness or a mass in that location. A rectal examination would no doubt throw light on the situation. I believe the boy has a pathologic appendix situated in the vicinity of the bladder, with possibly an abscess pointing in that direction. Either of the above mentioned conditions would account for the urinary findings.

As regards treatment. I would give a high enema with the expectation that with its expulsion the distended bladder, if distended it was, might contract and empty itself. If this did not realize, I would most carefully pass a catheter, apply hot fomentations to the abdomen, and arrange for intelligent observation, as surgical intervention may become indicated any moment.

Discussion by Dr. M. K. Dermenjian, Detroit, Mich.

This case suggests the following possibilities:

1.—Acute nephritis.

2.—Pyelitis or pyelonephritis.

3.—Acute cystitis due to bacterial infection.

4.—Cystitis produced by vesical calculi.

Before taking up the discussion, I deem it proper to point out that the present attack has no relation whatever to the slight injury sustained six years ago.

Before venturing on a differential diagnosis, the following information is essential:

a) What bacteria, if any, were found in the sediment and is there any evidence of a Neisserian infection?

b) Was the albumin test done on centrifuged supernatant urine (nephritis) or was it done without centrifuging?

c) Is there genuine distention of the bladder and do we have a case of dysuria or anuria?

d) Does pressure over the region of the kidneys produce pain?

e) Was a white and differential blood count made, and if so with what results?

f) Was a roentgenograph made of the kidneys and bladder, and if so with what result?

I take it that neither red blood cells nor casts were found in the sediment, otherwise something would have been said about them, and we can exclude nephritis, but in the absence of the information above given, I am quite unable to arrive at a definite conclusion.

As regards the treatment that, too, can not be intelligently discussed as it depends entirely on the diagnosis. Symptomatically, the boy must be relieved and this can be attained by a dose of morphine with or without atropine. Hot baths may "encourage" him to urinate. If this is not successful, careful catheterization should be done, though it is advisable to resort to this step at least not before another twelve hours have elapsed.

Editorial Comment

First, I am very grateful to Doctor Hamner for having sent us this case for discussion. I have received so few contributions of that character that I had to fall back on my own clinical experience. While in the selection of the problems, I have tried to alternate so that one issue would be interesting to the specialistic surgeon and another to casual operators—and every true physician is a casual operator, since any one may encounter emergency cases in which even a moment's hesitation will cost a human life—I think it is preferable to have others send in their own experiences, even if they never did arrive at an exact diagnosis. How many are there who have been called to apparently surgical or gynecologic cases and could not arrive at a diagnosis, because the phenomena were obscure and misleading? I believe many, for that happens even to specialists right here in the big medical centers with all facilities for scientific work. I concede that errors are made even by "professors" in the large hospitals quite often, and all this occurs because we are human—*errare humanum est.*

Now, our friend from Alabama lives in a comparatively small town and from what I know of him I can safely say he has the professional enthusiasm that should make us feel proud to call such men colleagues. He lacks there roentgen-ray apparatus, a pathologic laboratory and what not, and, what is more, if he actually had all these things and had used them on the patient, I would not give you a nickel for his contribution, and as a matter of fact would not have accepted it for publication in the Seminar.

The case as presented is, to me, interesting clinically from a diagnostic point of view, just because the data are inadequate. But are they really inadequate? Now let there be no misunderstanding. I am the last man on earth to deprecate the value of laboratory facilities, but I do not run to the pathologist or roentgenographer for every petty case. Often my patients are too poor for such expensive routine. (I hope a certain contributor will not envy my fine offices after that statement); often, again, we are not in need of these agencies. When I think back to the time when I first entered the vineyard of the Lord to function as a healer of bodily ailments, the x-rays were more of a novelty than a help, and the microscope was not pulled out for every case that came to our office, and most of us made good diagnoses, yes, even of kidney and bladder diseases, and we operated and had the satisfaction of seeing our "intuition" proved indisputably true.

General Acheson (and I do not know what I would have done without him and a very few other loyal supporters sending in discussions, thus affording material for this department, so that they and not I are the real editors of the Seminar) gives phimosis as a possible cause. That is absolutely so. I can not at this time tell how many similar cases I have seen, but there is no mistaking the clinical entity.

Doctor Crack offers some interesting and valuable suggestions, which merit careful consideration.

Doctor Dermenjian, with whom I have had an interesting correspondence in regard to the Seminar, whom I guess to be an Armenian

with all the tenacity of his race, goes at the problem in a systematic manner; but, he must not forget what I have said about facilities, and we must therefore proceed to study the case "as is."

We confront a boy about 14 years old with a negative past history, for the abscess, or whatever it was, which bothered his right groin six years since, can be eliminated as without any bearing on the present trouble. But his sex and age are data of great value.

Now, let us study the phenomena.

Anuria, or in all probability dysuria, producing or connected with discomfort, swelling of the abdomen and tenderness over the region of the bladder, nausea and vomiting, with a comparatively slight increase of pulse and temperature without corresponding increase of respiration, to all of which must be added the valuable information that the urine contained many pus cells and some albumin.

Here our information ends, as it should, when the question of immediate relief is uppermost, as it is when the average practitioner is called to a family in distress, as it generally is when hospital and laboratory facilities are not immediately available or could not be made available for social, psychic or economic reasons.

Whether there was real, genuine anuria or merely dysuria requires no special discussion. An anuria does not pop up like migraine without previous warning, and the pain and tenderness the boy complained of for the past two days serve rather to confirm the failure to void urine as representing an ordinary dysuria.

The dysuria is due only to one of three causes, namely, to an affection producing mechanical obstruction, such as calculus, to a nervous condition or to an inflammatory condition produced by infection either in the kidneys, ureters, bladder or urethra.

The boy is too young for a prostatic hypertrophy, and if he had contracted an acute gonococcal infection, Doctor Hamner would either have said so or more likely not presented the case at all.

For calculous obstruction the symptoms are not violent enough, so that there remains only the question of infection.

We can rule out, for obvious reasons, nephritis of any type, the small amount of albumin being due to pus, and the problem simmers down to a cystitis or pyelocystitis.

When it comes to answer the question of the special type or source of infection we are entering the domain of conjecture, for without special and complicated examinations no exact answer can come forth, and it is sufficient for our purpose to know that after we have relieved the distention in any manner indicated by the correspondents, we have ample time to determine all necessary factors involved and treat the condition along scientific lines.

Doctor Hamner's Case 2

A married woman and mother of two children, the youngest two years old, with a negative family history, suffered from an abortion, six years ago, from appendicitis, for which operation was performed, about four years ago, and from an attack of pyelitis, which lasted for about three weeks, only a year ago, with a concurrent eczema of five months' duration.

The present history is that a week ago, immediately after dinner, without any known cause or warning, the patient began to complain of vague pains generalized in character, constipation, fever at night, severe crampy pains in left leg and arm, which are not painful on motion. Menstruation, previously regular, becomes scanty, painful and dark in color; there is a choking sensation in the throat and chest, the patient tosses from side to side and looks very sick.

Temperature 104° F.; pulse 100; respiration 20. Outside of a shallow skin, coated tongue and a slightly enlarged spleen nothing abnormal can be detected on physical examination. The patient has never had any chills and there is no eruption of the skin of any kind.

Doctor Hamner points to the subjective symptoms of thirst, nausea (slight), severe pains in left arm and shoulder and leg, choking sensation of the throat, as particularly interesting and puzzling.

Discussions

General Acheson refuses to comment on this case without a urinary analysis and blood count.

Doctor Crack looks upon this case as the expression of a rather severe type of influenza, to which must be added the weakened general condition of the patient, due to previous illness and apprehensiveness on her part. This fully explains the temperature, the pains in left arm, shoulder and leg, while the choking sensations are frequently observed in nervous women.

Doctor Dermenjian considers uterine infection followed by bacteremia and embolism, luetic crisis or acute poisoning of gastrointestinal origin. It is not clear to him, as re-

gards the first consideration, whether the patient had her regular period two weeks ago or not; that is to say, whether there has been a cessation of her menses and whether anything was done by her to bring them about, causing a possible infection, which latter may also be traceable to previous trouble. The absence of chill is not easily explained, as this generally precedes infection. The pulse, too, seems too slow for a temperature of 104° F. Cultural methods may prove helpful.

A luetic crisis explains the sudden onset, the crampy pains in the extremities and the choking sensation. Against it speaks the high temperature. A careful history and Wassermann would confirm or reject this diagnosis.

If it were not for the menstrual history, the suddenness of the attack suggests either ptomaine or chemical poisoning of gastro-intestinal origin. Naturally, others in the family would also suffer from ptomaine poisoning. Chemical analysis would enlighten us on drug poisoning. The inclination remains to accept the first proposition.

Editorial Comment

To me, this case appears to be medical in character and I am not competent to pass an opinion. That it is non-surgical is evident from the entire clinical picture. The woman has an old trouble, probably malaria, or possibly an incipient Bant's disease, as the enlarged speen can not be explained away. That toxicoses assume acute exacerbations is well known. The toxic neuritis in the right extremities is easily explained and the same condition affects also the muscles of deglutition. Even a mild cholecystitis or enteritis should produce all the phenomena as given. Beyond these remarks, I beg to be excused this time. Doctor Hamner is cordially invited to close the discussion.

Obstetrical Problem No. 1

Note:

It is a long time since I have delivered women, though on very rare occasions I am asked by some colleague to perform major obstetrical problems. Nevertheless, I venture to submit a problem just to show how readily this art lends itself for our scheme of study.

The Problem:—The patient has suffered for some time from undoubted heart disease (mitral stenosis) but well compensated. She is pregnant for the first time and has suffered from weak labor pains for about three hours.

On examination, you find a normal pelvis; measurements and the urine, too, are normal. The child seems to be rather large, but the head is movable. The os uteri is dilated enough to allow the index finger to enter easily. The bag of water has not ruptured.

General examination shows a pulse of 106; temperature 99° F. The region of the heart shows diminished dullness on percussion, systolic and presystolic murmurs at the apex, which seems to be pushed to the left. There is a loud, accentuated pulmonary sound.

Requirements: What measures are indicated in delivering this woman with an undoubted heart lesion? What complications, immediate and puerperal, are to be guarded against?

Buy Christmas Seals

and

Fight Tuberculosis

Good Medicine

Let us learn as we go, but not forget what we know
Conducted by GEORGE H. CANDLER

Mrs. O'Hara's Great Extremity

MRS. Timothy O'Hara (*née* Callaghan), standing five foot nine inches in her stocking feet (which she did a good deal when there was no company around) and weighing 160 pounds, suddenly found that it hurt her to sit down. She first tried sitting on the extreme edge of the chair, which helped some, and then after another twenty-four hours she tried sitting on the chair half-way of herself, which seemed even a little better. It was evident to Mrs. O'Hara that something was growing where it should not grow and, moreover, that the growth was fast and decidedly furious. Delicately she investigated the area and diagnosed a "rising." Being innately modest, she hesitated to tell the neighbors of the interesting event and with great pains and infinite secrecy manufactured and endeavored to apply a soap-and-sugar plaster, which she had heard her dear old grandmother affirm was good for "risings." Mrs. O'Hara, however, experienced more than a little difficulty in getting her plaster to stay where it was put and devoutly called on the Saints to witness that "niver, no *niver* was a dacint woman subjected to such a trial befure." By contortions, which distressed her spirit, and the aid of a looking-glass upon the "flure", Mrs. O'Hara was finally able to witness the scene of devastation and what she said was: "Howly Mother of min and angels!"

The O'Hara "rising" was a most beautiful furuncle situated, as subsequent events developed, on the gluteal equator — or perhaps two degrees south by east. One night of *emplastrum saponis comp.* and the O'Hara "rising" was worse than any Fenian outburst on record. That day the lady stood up to eat and spent more hours than she should, first in recovering the plaster and readjusting it and then in prolonged ocular and digital examinations of the now active volcano itself.

Towards evening the thing became altogether too much for her to stand unassisted and she called her next-door neighbor, Mrs. Schwartz, up to the back "fince" and whispered the facts into her sympathetic ear. Mrs. Schwartz expressed the opinion that Mrs. O'Hara had a "bile" and sadly conveyed the additional intelligence that she knew another woman who had a "bile" in that place and "it went to her head and she died delurious." "Faith," said Mrs. O'Hara, "Oi'll be thot befure thin! Ye've no ijee at all, at all, Mrs. Schwartz darlint, how that 'bile'—if so be thot it is a 'bile'—hur-rts mesilf." "I have," said Mrs. Schwartz. I had one of them things on my arm one time and it pained scandalous." "Yez shouldn't mintion the two things in the same brith, Mrs. Schwartz; this wan, as Oi towld yez, is *not* where a Christian body kin hiv th' consolation of lukkin at it—onless she imulate the bonelis marvil at the circus. An' Oi'm no graceful gazelle to luk into a glass behind and benaith me." "That's true," said Mrs. Schwartz, "y' *are* gettin' heftier— mebbe that's why ye're getting biles. If I were in your place I'd see the doctor right off quick."

"Oi'll do no such a thing," retorted Mrs. O'Hara, "'tis wantin' to luk at ut he'd be." "He would," said Mrs. Schwartz. "Wull, he wull *not* see it" affirmed the owner of the "bile" as she stalked off into her domicile. But another hasty examination confirmed the suspicion that the "risin'" was by now somewhere in size between a hen's egg and a cocoanut—with the odds in favor of the nut. Moreover, if Mrs. Schwartz's friend's bile "wint to *her* head" this one might do the same thing, so—she sent for Doctor Smith. He duly arrived and Mrs. O'Hara met him standing. "Oi hev a 'risin' or 'bile'," she informed him, "and Oi don't whant for it to go to me head." "Let's see it," said the Doctor, with proper professional solicitude. "Yez can't see it," Mrs. O'Hara assured him. "Can't see it? Surely you don't mean that it's internal?" "Oi guess," said Mrs. O'Hara faintly, "thot

it is thot, but it's breakin' through." "Well, just where is the breaking through occurring? Probably a small incision will relieve the whole trouble." Mrs. O'Hara trembled; partly from pain, partly with fear, and partly from indignation. "If yez think," she asseverated, "thot yez are goin' to sthab me in the back—or wor-r-se thin thot—ye're misthaken. Lave me sumthin to sthop a bile an' lit it go at thot. Yez kin see Oi'm not *settin'* an' can dhraw yez own phicture."

Doctor Smith saw a great light and thereupon spent thirty perfectly good minutes in explaining to Mrs. O'Hara that a "rising" or "bile" is really a furuncle, due usually to invasion of the tissues by the staphylococcus and that these bacteria are not particular as to what portion of the anatomy they invade. Further, that the way to deal with a furuncle is with cold steel and perhaps—if the thing recurs—with injections of killed bacteria of the same family. To all these arguments, however, Mrs. O'Hara turned a deaf ear; she would not permit any man, "avin th' blessed St. Pathrick himself, to see that curricule (if thot's what it wuz), much liss sthick a knoife in it behoind her back." What she wanted was 'somethin' to put on it to dhrive it in—dhrive it *anywhere* except to her head.'

So, convinced that the time was not yet ripe for definite measure and hopeful that in due course the furuncle would ripen and evacuate its contents, Doctor Smith advised hot antiseptic applications and full doses of calcium sulphide internally. He also added a brisk purgative for good measure and left with the final admonition that serious trouble might follow if the furuncle increased in extent and did not "burst."

Sadly, and devoutly calling upon the saints to befriend her, Mrs. O'Hara took the purgative, lay down in the position best suited to the application of hot antiseptic dressings to the gluteal region, and resigned herself to whatever might happen. She also prayed that the "pooruncle" might burst into a thousand pieces ere morning, or at least decide not to extend its territory. That night Mrs. O'Hara was *very* unhappy! She also conceived a violent antipathy towards Doctor Smith. When she wasn't up for one thing, she was for another, and if you have ever had a large active boil *a posteriori* to which HOT dressings must be applied without attracting undue attention from the family and at the same time received a full dose of magnesium sulphate, you can sympathize with Mrs. O'Hara.

At all events Mrs. Schwartz did, when the next morning she called to find out how matters were progressing. Mrs. O'Hara perforce received the visitor in a most undignified position but, by twisting her head sideways, she was able to partly express her feelings. "'Tis a 'murunkle' Oi do be havin'," she told Mrs. S., "an thot's a divil uv a soight wor-r-se thin any bile yez iver see." Mrs. Schwartz delicately expressed a desire to see this particular specimen and Mrs. O'Hara asked her "where wuz her sinse of dacincy—to say nothin' uv dilicacy? She moight, however, fetch her a hot towel and thin lave the rhoom." When allowed to reenter, Mrs. S. was informed by Mrs. O'Hara "thot the 'mirankle' wuz now as hard as a hathin's heart and bigger'n a dornick" and that, moreover, she had a strong suspicion that "another divil was burstin' out on the other soide." Conveying this appalling news, Mrs. O'Hara wept. Thereupon Mrs. Schwartz recommended the immediate calling in of a most eminent—and expensive—professor and after a while Mrs. O'Hara agreed to this step—provided the "gintleman" could see with a professional, not physical, eye and dispel the gathering without "sthabbing her from ambush." To which restrictions, Mrs. Schwartz demurred stating that the professor had seen many worse things before and could be trusted to cut, if cutting had to be done, in a strictly artistic and conservative fashion. Further, that "never in her born days had she seen a woman *so* particular" as to the point of view. "One might think," she vigorously remarked, "that your father was brought up in the caboose of a freight train and your mother never looked behind her for fear of the shock she might receive."

Again remarking that Mrs. Schwartz had "no dacincy" and asserting that she'd be "kilt inthoirely before she'd be exphosed to th' oi of innybody," Mrs. O'Hara tremulously awaited the arrival of the professor. Finally he too came and almost immediately demanded to see the carbuncle—for, from Mrs. O'Hara's impassioned description, he deemed it that. "Whirra?" she almost shrieked, "them things grow on th' back uv th' neck and I tol' yez my puroncle is lower down." "My dear woman," explained the professor, "a carbuncle is really an aggravated form of furuncle, having a crater-like center with multiple openings and no core. A furuncle has a core, one opening and may, though painful, not be a serious lesion. A carbuncle is, as you say, very hard, exquisitely painful, and often must be excised

and drained freely for fear of constitutional effect. Though often observed upon the neck, it may make its appearance elsewhere—as in this case. We must examine it, make an incision if necessary and, if there is any appearance of a multiple infection, prepare and administer an autogenous vaccine."

This information completely stunned the lady. "Give me another day, Professor, darlint," she pleaded, "just wan more day! Howly St. Polythemus and blessed St. Bridget, hilp me now, for if Oi'm to be incised, autovaccinated and ginerally disthurbed—to say nothin' uv bein' shamed by exposure—I moight ez well doie." So, against his judgment, the eminent professor left as he came (plus his regular fee) and Mrs. O'Hara sent for "th' praste."

"Father," she said, as soon as he was seated, "advoise me. Oi'm a dacint crathur an' niver hev Oi been exposed to the oies of sthrange min. Now Oi hev wan aggregated curfuncle on the one soide and a littler divil furninst it an' the both uv em', Father, askin' yer riverinces' pardon, are on the sate uv me! The docthers, divil take their sowls, want to incoise me and bacterinate me. Wull Oi lut thim do it, Father, or wull I doi wiv my characthur clane?"

"Mrs. O'Hara," said his Reverence, "if I were in your place and had two boils in that location and felt the qualms of modesty as you feel them, I'd try yeast, lots of yeast—a whole cake of it three times a day. If that doesn't cure you, you'll just have to be lanced and vaccinated I am afraid. And I assure you, front view or rear view is all one to the medical fraternity. You may proceed with perfect propriety." With which sage counsel he also departed.

Mrs. O'Hara immediately sent for twelve cakes of yeast. She took one every two hours by the clock and twenty-four hours later the "aggregated curfuncle" began to discharge vigorously—and two "minor divils" made their appearance "furninst the furbincle" across the way. In utter despair, Mrs. O'Hara sent for both Doctor Smith and the eminent professor and authorized them to 'autogenate, in-or-outcise, evacutate and baccinate, just as they saw fit,' "but," she pleaded, "rinder me sinseless foist." Which, gravely enough, they proceeded to do with the aid of ether. Unconsciousness produced, they turned down the covers and gazed long and earnestly at Mrs. O'Hara's rear convexities. From the major lesion they evacuated much matter and extracted a sliver. The minor furuncles they opened, swabbed with iodine and dismissed as "sympathetic."

When their patient recovered—on her back this time—she feebly asked "what it railly *wuz*?" "It was, Madam, a great extremity but you carried it nobly," solemnly said the professor and without more words he and the doctor departed—carrying with them certain currency they had not when they came.

"Afther all," Mrs. O'Hara confides to her female friends, "dhoctors air th' clivir divils: they recognize things whin they say thim—an thot's more thin Oi can say for yaste. Whirra! 'twas as they said; me exthremity wuz grate indade, but they met ut!"

And so she carried on content.

Let's Talk it Over

Conducted by All of Us

Dr. Bryce's Talks

Hot Times in the Practice

A YOUNG medical friend asked me, recently, what was the tightest fix I ever was in while engaged in practice.

A doctor encounters so many unusual conditions and dangers in an ordinary practice that the wonder is that more of them are not killed or seriously injured by a class of irresponsible patients that we all are liable to meet at any time.

As I have had several very stirring experiences, I hardly know which was the "tightest"; but I will mention one or two that certainly were tight enough for me.

My first two years of practice were done in the country because I could not afford the expense of equipping myself for city work; and it was fortunate for me, for it was the best medical school I ever attended. It taught me self reliance and gave me confidence that I would not have gained in many years of city practice where I could always easily call in another doctor to share my responsibility. In my field I had but little competition and little danger of adverse criticism if I blundered; so, I did all sorts of things in medicine and surgery more in accordance with my own ideas than any orthodox teaching. But the danger was not always to my patients at my hands but now and then I had a close call to save myself from sudden and unexpected situations.

It was in full midsummer of 1872 that a great portion of Eastern Virginia was in the grasp of a relentless epidemic of malaria. Everybody was shaking and freezing and burning with fever and sweating alternately, and whatever disease came along it was influenced and intensified by masked malaria. So great was the demand for sulphate of quinine that it sold for five dollars an ounce, and the country storekeepers retailed it by the dose to the poor sufferers at two cents per grain. Throughout the entire section of this portion of Virginia more than half of the population was unable to cultivate or save their crops or attend to their stock and the country presented the appearance of desolation. A peculiar feature of the abnormal manifestations of malarial poisoning was the intensity of congestion in certain organs and the prolonged continuance of this condition. Under these conditions, I saw many bastard fevers that baffled me for clear diagnosis and more so for treatment and many ran into a semi-comatose state and remained so for a day or two at a time. It was one of this character that came near proving my undoing on this earth.

One Sunday morning, I was riding past a country church before service commenced and a man called to me and asked me to go over to his farm nearby and see a colored man who had been "out of his head" for two days or more. As was the custom on many large farms in the slave-holding days, small cabins were frequently scattered about over the large acreage to accommodate individual families of negroes, and this patient lived in one of these isolated shacks. It happened that his cabin was a half mile from any other building and in the midst of a fifty-acre cornfield and completely hidden from view by the luxuriant growth of tall corn just silking and tasseling. His employer had informed me that I must ride along the edge of the field until I came to a dead pine where I would find a foot path that would lead me to the man's home.

A little winding path finally brought me abruptly to a log cabin with less than ten feet of open space around it, completely hidden from outside view by the waving field of ripening corn. I tied my horse to a little peach tree and entered the one-room shack. The room was poorly lighted, having only one little four-pane window and a narrow door. There was no one in the room except a colored man lying upon a bed in one corner of the shack. He appeared to be in a stupor,

or rather comatose, until I laid my hand upon his arm to feel his pulse, when he slowly opened his eyes and sat upright on the bed and stared at me for a few moments. His eyes were blood-shot and he evidently was delirious. Without any warning he sprang at me and grasped my throat with both hands and rushed me backwards across the narrow room, completely shutting off my respiration with his vice-like grip on my neck. I realized that I was as near death as I could be and was growing unconscious as he landed me in a chair across the room, fortunately, beside a little table, upon which his wife had left a wooden rolling pin. My brain was reeling and everything was foggy before my eyes.

But, as my arm fell across that table, my hand fell on that heavy pin, and more automatically than consciously I swung it with all my power and must have struck him a terrific blow upon his head, for his grip suddenly relaxed and he slumped down upon the floor as I got one more breath and slowly realized that the life had not been entirely choked out of me. As my brain cleared and I gained strength enough to arise from the chair, I found that I was still clutching that rolling pin with all my power, while the poor negro lay crumpled up at my feet, breathing stertorously and in profound coma.

I was terribly worried over the circumstances that forced me to knock this poor creature senseless and to have, in all probability, killed him, but it was his life or mine and not a minute to lose. I was in a quandary whether to tell anyone about the blow I gave him or to just keep quiet and do what I could for him. But, as his wife stepped in the room, I did what I have always tried to do—meet the issue unflinchingly regardless of consequences. So I told her just what had happened and what I had done. She was one of those stolid undemonstrative women of her race and reasoned very fairly as she said: "Well, Doctor, he ain't no more outen his head den when I lef him, an' I don't s'pose you has made him any worser".

So we lifted him onto the bed and I put a blister on the back of his neck and left some veratrum viride to curb his tumultous circulation and took my departure. The man died the next day, and I suppose that he might have died, as many others did, from intense and prolonged malarial congestion of the brain—I hope so anyway.

Some Puncher

During my student days, I was assigned to service at a colored insane asylum on temporary duty where facilities were insufficient to properly control the great number of insane negroes that ran amuck in the slave-holding states with the advent of sudden freedom. It was in the days of the straight-jacket, the padded cell and iron bars, and many of these unfortunates resented the necessary restraint put upon them for their own protection as cruelties, and nursed concealed hatred for those in charge of them.

Among this lot of mental cripples, we had one big burly fellow that had both hands cut off at the wrists and who wore two sole leather caps over the stubs. He was tolerably tractable at periods and we allowed him moderate liberty, but always under the immediate watch of a sturdy man; for, he would go off at the most unexpected moments and attempt to clean out the whole place. At those times we would have to overpower him and put him in a cell and frequently in a straight-jacket.

This fellow took a special dislike to me and I knew that if he ever went wild he would kill me if he had the opportunity. So I always kept tab on him when I was making my rounds in the wards. On one side of the building there was a closed corridor, about three feet wide, running along the rear of about ten rooms, without any exit, so that you would have to go back and out by the same opening that you entered. It was one of the most fool pieces of architecture that I ever saw and made a perfect trap when one entered it. There were rear doors to each of these rooms, but they were always kept locked, and it was a duty to try them every day.

I had gone to the closed end of this corridor, one day, trying each door and, as I turned to come out, I observed the narrow entrance darkened by the big black fellow who, in some manner, had gotten out of range of the guard supposed to be watching him. He drew his arms down to his sides and stuck out his two leather-capped stubs like a pair of pestles and started towards me at a trot, yelling "Now I got you". There was no way of getting out of the corridor except by passing him and I realized that I was trapped and at his mercy. I knew it would never do to show any fear, so I put on a bold front and told him to "go back before I lock you up". But he just charged like a wild bull and came as near punching the life out of me as was possible without actually killing me. He jabbed me in my ribs and stomach and rolled me around that narrow corridor until I could not holler loud enough to be heard by any of the

guards. It is true I was a pretty good man athletically and I planted blow after blow on his bullet-head with all my power, but it had about as much effect on him as a rubber ball would have opposed to the heels of a jackass. I believe he would have killed me in a few minutes more but for my thinking of a huge safety pin in the lapel of my coat, which I jerked out and suddenly rammed into his belly like a pitchfork and telling him at the same time, "By gosh, I've split your gizzard". The poor devil uttered a wild scream and fled at top speed leaving me to get my breath and laugh at the ludicrous picture I made with my improvised weapon of defense. But he was sure some puncher!

Perilous Practice

One cold November evening when it was drizzling and chilly, I was sitting in my little office meditating on my chances for procuring enough of the wherewithal to subsist until the blue birds sang again, when a timorous knock came to my ears. Visions of a good patient and a fat fee came before me as I opened the door.

A timid looking boy asked me to come to see his mother, a little way up the street, at once. As I needed practice and took anything that came along, I followed the lad to his home in West Marshall Street without asking any particulars, as he led the way muffled up in a great overcoat about three sizes too large for him. In a little while he halted before a side alley gate and said: "We will have to go in this way".

It struck me as being peculiar, going in by the alley-way, if they were people of any "standing", but I followed along and awaited my doom. We ascended a flight of steps and traversed the hallway to the front door which I observed had been locked and had no key in it. The hallway was feebly lighted and contained a broken chair and a pegless hat-rack. My ideas of a big fee were on the wane as I took in the surroundings. The boy opened the door of his mother's room and said: "She is in there". I noticed that he immediately retired as soon as he pushed open the room door.

I walked quietly in and found an enormous, red-faced woman sprawled upon a bed in a corner of the room, groaning and snoring as if she was suffering with cramp colic and apoplexy combined. This room was badly lighted, very disorderly and smelled of whisky and sauerkraut. I was a little nonplussed as to what line of practice to adopt. I was uncertain whether to retire or advance and practice my profession.

As I surveyed the monstrous creature who had not discovered me at that time, I felt some misgivings as to my ability to cope with her should she be delirious or boisterously drunk. It occurred to me that I would like to have some member of her family present when I aroused the sleeping beauty for examination and prescription, and I accordingly made a step backward toward the door for the purpose of calling her husband, if she had one, or the boy even, who would have been a decided comfort to me at that time, when, all of a sudden, she poised herself in an upright position, dashed by me, locked the door and took the key with her.

Then turning her bleared eyes upon me, she advanced in a menacing and maudlin manner and said, "Now, you just explain what you are doing locked in my room here!"

I was completely taken aback, and said "I am her to attend you."

"Oho, attend me, hey. Well, now if you don't explain at once, I'll make it lively for you" she said.

By this time I realized that I was in an ugly predicament and heartily wished I was back in my little office without any fee at all. From the location of the house and the appearance of the virago, it dawned upon me that I had encountered one of the most dangerous and depraved women in the city, and I prepared to sell my life dearly, as the dime novelists write it.

So I put on a defiant air and said: "Look here, woman; open that door at once and let me depart or I'll make it lively for *you*".

To my surprise, she made a pass at me like lightning, which I dodged by ducking promptly. But, on her counter-charge she landed one of the "stingingest" and sharpest, ringing smacks on my left jaw I ever felt and, being unprepared for it, I lost my balance and fell sprawling on the floor with my head partly under the old high-legged bed upon which she had been reclining when I entered.

As times were decidedly lively and rather pressing, I made no attempt to return to the fray, but crept on under the bed for the purpose of collecting my wits and escaping the enemy.

While the old rubbish, dust, cobwebs and bad odors under that bed were not at all to my liking, yet it was the most welcome spot I had struck for a long time, and but for the stifling dust I would have actually breathed easily once more.

The ludicrous position I was in caused me to laugh outright, as I took in the whole affair and, at the same time, I was getting enough of the fun as I began to perspire in my stuffy quarters. I knew that I was actually in personal danger, as the woman was a tremendous, drunken Irish brute, and just about half mad. I was getting mad myself. I was hungry and ashamed of being actually on the run, dodging under the bed—and from a woman at that!

There was an old bootjack under the bed, and I got hold of it, peeped out to see where she was, and cautiously crawled out fully determined to knock her brains out if she made any further attack or demonstration. In fact, I came out fighting mad! She met me squarely and made a rush at me. By some chance, she jerked the bootjack out of my hands before I could hit her and I was forced to do the most cowardly thing a man ever did. I grabbed her by the hair with both hands and yanked her down on her knees. It was a death-struggle for both of us. She made a few frantic efforts to rise; but, securing a good hold of her dirty, oily, black tresses, I snatched her forward so that she had to sprawl her hands on the floor at each snatch to save her face from being smashed. I found that by unmercifully snatching her forward I could keep her so occupied in trying to keep her mouth and face off the floor, she would not have an opportunity of tripping my legs from under me, and this is all that saved me. So, for a few minutes, we went around and around there, bumpyty-bump, bumpyty-bump, I yanking and she catching on her hands.

It was a terrible ordeal for both of us. I would have given ten dollars as poor as I was, to have been able to release her, but I dared not.

Finally, she struggled less and without any warning, screamed out with all the power of her lungs: "Murder, Murder, Help, Fire". Her shrieks were blood-curdling, but I held on to that head. And, as she made one more desperate effort to rise, I shook her down so that her next yell of murder was cut up into a sound like "Mur hur dur dur". To my great relief and mortification at my predicament, I heard hurried and heavy footsteps on the porch, and in a minute or two the doors were forced and three or four policemen rushed into the room and rescued me.

But I got my fee all the same; for, after she was landed in the station house, she became so violent and obstreperous that the officer in charge sent for me to "give that woman something to quiet her, for Heaven's sake", and with the assistance of four policemen holding her down I shot her hypodermically with a quarter grain of morphia, after which she rested from her troubles, and I collected five dollars from the good city of Richmond for services upon one of the most difficult cases I ever tried *to hold down.*

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TELEPATHY

Some years ago, I was called to a plantation on the Pacific coast of Guatemala, where a lady was dying of a complication of sarcoma of the liver and other things, any one of which should have been fatal. As the family wished to bury her in their home town, many miles away in the mountains, I advised them to start on the long journey as soon as possible; for, even though the patient was still alive, she could not survive the night, and it would have been almost impossible to have secured permission from the government to transport the corpse.

Toiling along the way, night came on, and the woman died; but, we continued and I said nothing to the accompanying children of the death of their mother, as the father did not want the party stopped by the authorities, as would have been the case had there been the usual manifestation of grief.

In the dense darkness, the leaders of the party lost the new road and led us up the mountains along the old and abandoned trail which is very narrow and dangerous in places. I was riding a fine large horse, a Mexican thoroughbred and very intelligent. But the horse slipped on the extremely narrow and rocky part of the trail, over which trickled a stream of water from the overhanging wall of rock, and fell flat with me. I spoke to him at once, ordering him to be quiet, and then carefully disentangled myself from the stirrups and his body, and hugged the wall.

As soon as I was free, I gently ordered the noble animal to get up, but to be careful or we would both fall into the chasm which yawned a hundred feet below. He understood me thoroughly and, with extreme care, as gently as a mother, arose to his feet, rubbing my hand with his nose, as much as to say, "See, we are all right!" I called to the others of the party who, bringing torches, revealed the terrible danger I had been in, for the trail was no more than two feet wide at that

point, slippery as water can make soapstone, and the deep chasm below.

Did all the events of my life pass in review before my mind as I hung on the brink of eternity? Not a bit of it! I thought, "I wonder if the horse will fall on me at the bottom of the precipice, or will I fall on him? If I fall on him, I might not be killed; if he falls on me, that is the end." I also thought to myself, "My medicine case will be dashed to pieces, and that is too bad," I carry the No. 8 Abbott case, which in remote places of the earth represents life to many.

Now, here comes the amazing part of the narrative, even the sequel to my miraculous salvation. My wife was in bed in our house, sixty miles away. She knew nothing of our night journey, nor of the circumstances connected with it. Yet, awakened from sleep by a revelation of the accident flashed to her in some strange manner, in which the whole thing was made plain, she alarmed the household with the news that some dreadful accident had befallen me. They also noted the hour, and it coincided with that of my fall sixty miles away! So, talking of telepathy, there are many things of which we know little as yet.

X. Y. Z.

YOUR DIAGNOSIS, PLEASE

[This communication, addressed to Doctor Blech, appears here instead of in the Surgical Seminar, because of the assumed non-surgical character of the case described. What is your diagnosis and how do you arrive at it?—Ed.]

In reading your section of Clinical Medicine for October, I notice you feel that the Seminar needs more encouragement from your readers; hence this letter. Your department has always appealed to me, even though my interests in medicine are not surgical and I hope, some day, to specialize in Internal Medicine. The problem plan of teaching always seemed to me to drive home facts much better than any other method.

Personally, I would also like to see a Medical Seminar in Clinical Medicine, but of course this is purely selfish.

I have several other problems which might be worth publishing and I believe that, while not entirely surgical, they are enough on the borderline to be of interest.

Miss G. R., age 19; occupation, student. Onset of trouble about March 1st.

First seen on April 15, while calling on her mother. Complaint, frequent headaches of a congestive type. After a thorough examination, including eye ground and urine, I diagnosed eye strain or migraine (this latter being hereditary in the family). She did not have her eyes examined until two months later when her headache became markedly worse and, within 36 hours, she then consulted an oculist in the city where she was attending school. He dilated her pupils and furnished her with a prescription for glasses.

On the way home, she became very nauseated and had to vomit several times on the street. They called in a physician who diagnosed her trouble as either typhoid fever or food-poisoning. She was under his care for three days when her parents brought her home.

First examination: Patient complained of general headache, frequent vomiting without nausea (central), inability to sit up, some abdominal soreness.

Scalp showed no areas of tenderness; eyes reacted to light and distance, eye grounds normal; mouth and throat negative; heart, lungs and abdomen showed no pathology, except that the abdominal muscles were tender from the strain of vomiting. Reflexes, superficial and deep. Slight diminution of right knee jerk, but not enough to warrant any conclusions. Spinal fluid, pressure and laboratory findings showed no abnormality. Blood, slightly leukopenia (5,000). Urine, trace of albumen, no blood cells, pus, but contained some granular casts.

However, I felt I had a case of typhoid fever.

The following day, she had several convulsions and I found a greater diminution of right knee jerk, also a slight Kernig's, and leadpipe rigidity of the neck. This naturally made me feel that I was in error.

I neglected to state that her temperature ran around 101.5°, pulse 86, respiration 22, blood pressure 120-80.

Being unable to come to any conclusion after several days, I called consultation. The patient had frequent vomiting spells, several convulsions, no increase in other symptoms except that the light hurt her eyes and she had some diplopia.

Due to the consultant's opinion, that she had either a mild cerebrospinal meningitis or tuberculous meningitis, we called in a state man, who wasn't any further advanced.

After several more days, about a week in all, the patient became unconscious. Choreaform movements on right side would rouse

up occasionally; had complete incontinence of urine and feces. Temperature and pulse were constantly between 101° and 103° F. and pulse 86-100.

Three days after, unconsciousness set in, patient died from bronchopneumonia.

Now, my diagnosis following the onset of lead-pipe neck rigidity, diplopia, etc., was encephalitis lethargica because of the mode of onset, negative spinal fluid (Wassermann and blood). One other consultant agreed with this. The others were tuberculous meningitis, typhoid fever, acute cerebrospinal meningitis, and hysteria.

The reason this might have been surgical was that, in talking with another surgeon, in a nearby city, he suggested brain tumor. However, our spinal fluid showed a marked increase in sugar on the fourth tapping, three days before death. This, I believe, is considered by some of the Philadelphia men as pathognomonic of encephalitis lethargica.

W. D. LANE.

Bad Axe, Mich.

OREXINE IN PARAGEUSIA

In the July issue of CLINICAL MEDICINE, I read the article by Dr. Wildner in which he recommends orexine as of benefit to weak, chronic and acutely sick people through reinforced feeding. This article also mentions gymnema sylvestre. I was the originator of the therapeutical use of gymnema sylvestre and imported it under many difficulties into Europe, 30 years ago. I agree with Dr. Wildner that the application of orexine is more convenient than gymnema sylvestre, but the preferability of either indication depends upon the individuality of the patient. I can claim to have some experience with the treatment of parageusia. By my fecal analysis, I found the principal sources of lost appetite with pathologically excessive decomposition within the colon descendens producing undesirable derivatives of phenol and indol, a fact already mentioned by Dr. Wildner.

Orexine is an old efficient remedy for these conditions, but it was not available in America for a long time because of the war conditions. Orexine was first made known to the medical profession in 1890 by Professor Penzoldt. I was a pupil of Professor Penzoldt at Erlangen in my initial years of medical study.

What I consider indispensable to add to the paper of Dr. Wildner for the profession, is that I claim that the chemical and physiological relationship of orexine has never been explained sufficiently clear. Many by-products of the synthetical formation of orexine and related compounds have undesirable and even poisonous effects upon the human system. Only absolutely pure orexine of a first-class manufacturer ought to be accepted and only in the form of the original tablets.

The reason for this claim may follow: Quinazolin, the chemical nucleus of orexine, shows a double ring, one consisting of six carbon atoms and the second adding two carbon and two nitrogen atoms. The chemist individualizes these two nitrogen atoms by the figure 1 and 3 for their relative position within the molecule. In relation to the primary ring, the nitrogen 1 may be called ortho nitrogen and the nitrogen 3 meta nitrogen. All the compounds containing ortho nitrogen with a chemical arrangement giving this nitrogen a chance to undergo salt-forming reactions with living cells, retard the metabolic processes of higher animals and kill lower animals and fetal life. This ortho nitrogen within a similar double ring is the basis of the action of quinine and all the similar alkaloids found in the bark drugs concerned. All these constituents, and particularly quinine, belonging to the same group, are known to be useful in febrile conditions and also with all the low parasites within the human blood. In the saccharin double ring a meta nitrogen is found. Nitrogen of this position does not interfere with the internal human biological chemistry. For this reason saccharin causes a strong perception of the sense of taste, but no other physiological effect. It may be noticed that saccharin was discovered at New York about the same time as the discovery of orexine took place at Bieberich.

Of the two nitrogen atoms of orexine the ortho nitrogen is held with three affinities within its own ring, and retained no chance for retarding reaction within the human organism. This is very important for the medical practitioner.

The orexine patents expired a long time ago. Anybody may now manufacture his own orexine. But, during the manufacturing process, every time, to a certain extent, mixtures of compounds of active ortho nitrogen with compounds of active meta nitrogen are formed. The complete purification of orexine from by-products of the active ortho nitrogen is very important.

The war conditions are gone. It is to be

expected that the scientific handicaps remaining after the war, will soon disappear. This certainly will bring orexine into extensive use by American physicians. I emphatically caution the profession to use only products of proven purity in treating parageusia. All the compounds with clearly beneficial efficiency against parageusia and anorexia, as a rule, are chemically very close to similar compounds with poisonous effects. Chemical purity is a necessary prerequisite.

FELIX VON OEFELE.

New York City.

SOME HISTORICAL DATA ON MEDICINE AND ON DOCTORS

Some ancient quotations from the writings of Plato, Socrates and Homer may be of interest to those who have not taken the time to read them.

Plato and Socrates lived in Athens, Greece, and had a comprehensive knowledge of things of their own time and of the ages gone before. Plato was Socrates' pupil, the latter being somewhat older. He makes reference to the fact saying, "As I live in a distant part of the city from where you live and am getting old and it is hard for me to get about, I do not get to call on you very often and prefer to stay at home."

Plato lived about 440 B. C. He was a great student of Homer and copied his style of expression. These words were expressed by one of Xenophanes colleagues, "The body returns to dust and the breath to the heavens whence it came." This expression is later on found in the Bible. The last breath of air was the soul of man and it came into the body at the first gasp of aid and departed at the last into celestial space. Another epigrammatic expression, heard frequently nowadays and recoined by Kipling and others is, "As a man thinkest so he will be and so will he do." The Apostle, Saint Paul, was the first one in history to use it if he did not orginate it. Many of the idioms and thoughts and philosophies of common law, religion and conduct of mankind that we read in the Bible and elsewhere originated with the Sumerian people, who lived 8,000 to 10,000 years ago, and came down successively through the Babylonian and Assyrian religions and laws.

Plato asks Socrates about his experience in his older days. This was his observation: "The mere pleasures of the flesh fade away. The greater to me are the pleasures and charms of the mind; the displeasures of old age are a matter of personal disposition, if bitter or sweet." This reads as if it had been written only yesterday.

Plato, says history, recorded the names of the two doctors, sons of old Asclepiades and their mother Hygeia, whose name stood for Cleanliness in those days and for hygiene today. In the siege of Troy, the doctors were in the habit of sucking the blood out of the wounds of the injured soldiers and putting on some dusting powder to assist nature in healing them up. We had our era of dusting and antiseptic powders, but it finally fell into the discard. Some lay people suck the blood from their wounds today. What was the incentive for those doctors, thousands of years ago, to suck the wounds? Was it to draw out some supposed poison in them? They undoubtedly had bacterial infections.

These doctors would have nothing to do with incurable cases and with drunkards, as their lives were of no use either to themselves or others and the art of medicine was not designed for their good. If they were as rich as kings, the physicians still would decline to attend them. So, way back in those days, 1000 B. C., they had drunkards and doctors did not have any more love for them than we have today.

Speaking about the life of soldiers in the days of these doctors, Plato says, they were not given boiled meats as it was not convenient to carry utensils for that purpose, but it was roasted. All they had to do was to light a fire and hang the meat over it. These doctors did not let soldiers have sweet sauces or candy even if made in Athens and offered by sweet Corinthian girl friends—that was about as severe discipline as we had in the World War. The Greeks, way back there, disapproved of the excessive use of sweets, as we do today, and for good and just reason, as clinical evidence has time and again proved it to have a bad effect on the body.

Speaking about invalids, Plato says, "They are always doctoring themselves and fancy that they will be cured by some nostrum or other which anybody may advise them to try." Nothing could be truer today than this statement when patent medicines are so plentiful and everybody has a dozen domestic remedies for all kinds of ills. Some are relics of the dark ages of witchcraft. It is a curious question as to what Plato meant by the word *Nostrums*. I presume, some kind of concoction.

In an interesting discussion between Socrates and his friend Cephalus, a wealthy man,

Socrates says "let me tell you, when a man thinks himself to be near death, fears and cares enter into his mind which he never had before. The tales of a world below and the punishment which is expected there for deeds done here were once a laughing matter to him, but now he is tormented with the thought that they may be true, either from the weakness of age or because he now is drawing nearer to that other place and has a clearer view of things."

Speaking to Socrates, Plato says, "Is the physician taken in the strict sense as a healer of the sick or a maker of money?" adding, "remember, I am speaking of the true physician." Socrates answered, "A healer of the sick."

Notice that, beside the true physicians, there were even then the money-making doctors, the hot-air boys that play to the gallery. The same soft-soap crowd and fakers that we have today, and again the hard-working student of disease who works on trying to understand etiology, pathology and treatment regardless of monetary consideration.

Speaking again of doctors, Plato says to Socrates, "What would you think of the physician who prescribed meat and liquor to the sick?" Evidently they had a meat and liquor question in those days.

Plato expresses a good sentiment in the following words concerning the doctors of his day: "His mind has a soul deep and fertile out of which springs prudent counsel." Let the physicians who read this hold council with themselves, and see if they cannot improve the character of their own mind so they also can hold silent prudent council over their sick at the bedside and work out a correct diagnosis and method of treatment. The great mistakes are made through not using one's knowledge.

Of carpenters, Plato says, when they call a doctor they expect him to use an emetic or a purge or cautery or a knife in drawing blood or a blister. These were the remedies he believed in and he did not want his neck swathed and swaddled up with stuff. There must have been some usage of remedies about the chest and throat, so that we may suppose that they had colds, sore throat and lung disease. To this day we have all kinds of fetish ideas as to domestic remedies that are used for that purpose, such as turpentine and lard, old dirty socks, fat meat, onions, skunk oil, etc.

Plato visited Sicily and learned of the Sicilian school of medicine which was teaching, 500 years B. C., the Diocles' theory of arteries and veins as carrying air and blood through the body.

Harvey is supposed to have been the first one to recognize and demonstrate the circulation of the blood. This statement should be qualified so as to refer to our time only. The first medical school in the world that we know of was the Charion School (about 900 B. C.) in Homer's time. He speaks about it in connection with Achilles and says that Achilles was a pupil of Dr. Charion, referring to him as a physician.

Again, we find that Plato was a shrewd observer: "Polygamist people degenerate in character" and "prostitutes of his time never got pregnant." That appears to be true today.

Speaking about love affairs, he remarks to Sophales, a friend, how he felt about these matters, saying that, at his age, peace and calmness had come to him. "I feel as if I had escaped from a mad and furious master, the pleasures of youth and the passions of the flesh are gone and in their place freedom has come." He describes the decline in sexual power as age advances. The displeasures of old age are subject to the self-control and the disposition of the individual. The comforts of life in all stages depend upon being cheerful in mind; Plato believes in the warm rays of human sunshine—the utopian aspect of life.

Plato says, "There cannot be health of body without health of mind." A very true observation. Emerson expresses this same idea, and it is certainly true; without contentment of the mind, the digestive secretions and the endocrine secretions are thrown out of order. Their influence on the body is manifold and they have a definite purpose in vitalizing and stabilizing the body and mind. Plato speaks of the power of music in sickness, in getting the mind away from the body and its ills.

Socrates says, if a physician's son or someone else should be attacked with inflammation in the lungs and request liquor and meat to eat, the physician should be inflexible in denying him such things.

They had wet nurses but did not believe in protracted periods of nursing the babies. The mother should not get up at night if it is possible to avoid it. He says, a woman should marry at 20 years, men at 25 years. The deformed and weak children should be separated from the others and cared for by the State and not be allowed to marry. The races should guard against deterioration of the blood by not mating with inferiors. That

sounds like reading some present-day opinions on Eugenics and on the care of the mother, the deformed child and the weak minded. We are doing all of these things today and think we are quite smart for being so civilized. "A woman should bear children up to forty and a man should beget children up to fifty-five."

We have heard considerable about state medicine, the doctors being paid like the judges, and like them in the service of the Government. The Greeks had this problem and Plato speaks about it. Referring further to the physician, he says "and the temperate man will know that the physician possesses a certain science, but some one else will look into the science of the physician, what it is and of what things and which is then laid open, when it is known of what things it is or is not the science. And the medical science has been defined as being different from the rest of science, being the science of the healthy and the diseased."

Think of it, 500 years B. C. they talked these things that I have recorded, and realize that we are following very much the same precepts.

JAMES G. KENNEDY.

Elk City, Kans.

MY EXPERIENCE WITH WINTER COLDS

A cold, as understood by the laity, is any deviation from normal, from a coryza to a possible pneumonia, with all of the intervening mucous membrane subject to the invasion.

The causes are as various as the points of attack and may be anything from indigestion to too thin underwear; or, especially in men, removing the hat in an exposed place, in deference to the fair sex.

The coughs, which accompany these colds, generally indicate the location and character of the invasion and, not infrequently, its prognosis.

Coryza, probably the most frequent form of cold, is ushered in by sneezing, a burning sensation in the nasopharynx and a discharge of a thin, watery fluid that irritates the mucous membrane and the skin with which it comes in contact.

The inflammation at times extends to the eyes with a resulting lachrymation and conjunctivitis.

The ears are also frequently involved by infection of the eustachian tubes.

The causes leading to these conditions are cold and wet, indiscretions in eating and drinking or the inhalation of irritating dust or gas.

If the disease is allowed to progress, the secretions become turbid and purulent, occasionally bloody.

The treatment should be prompt to be effective and consists, first, of a good cleaning-out with calomel, 1 grain, in divided doses, followed three hours later with a full dose of magnesium sulphate in a glass of hot water. The effervescing saline laxative (Abbott) may be substituted if the patient objects to the epsom.

Give atropine sulphate 1/500 grain every hour until relief, or when dryness of the fauces and redness of the skin appear. Should there be an excess of temperature, give aconitine, 1/800 grain, every half hour until the hypertemperature is overcome.

As a local treatment, I have found that a 0.1 percent solution of chlorazene, snuffed up into the nose and also used as a gargle in the throat, gives great relief and adds to the hastening of a cure.

The patient should be kept in a moderately warm room, preferably in bed, and the diet should be restricted to the least stimulating food and as little drink as possible.

With this treatment, I have cut short the disease in many cases when the patient presented in the early stages.

Influenza

Influenza is distinguished from coryza by the greater severity of the invasion and the attending symptoms and by the microorganisms which are characteristic of the disease.

While influenza is not especially a winter disease, it appears frequently at all seasons in the south and, in contradistinction to the treatment of coryza, I have found that spiritus frumenti in full doses offers the best treatment that can be used for this trouble.

Laryngitis

Acute laryngitis is essentially a winter cold and is caused by the same conditions that produce a coryza plus extension of inflammation from the pharynx above or from the bronchi below.

The symptoms are characteristic; a dry cough, hoarseness and pain in the effort of talking.

Swallowing is painful, due to passage of the substance swallowed through the inflamed larynx. Fever is not always present.

The patient should be confined to a well-

warmed room. If seen early enough, a dose of pilocarpine at the commencement with a good purge will usually abort the attack.

This is not always possible; generally we have a fully established inflammatory condition to contend with and, in this condition, I have met with some measure of success by the clearing out process as a beginning, then a mustard poultice to the neck over the larynx, if there is fever: then the dosimetric trinity (Abbott) every half hour until the temperature is normal.

I have found nothing better than calcidin for the cough and faucial irritability. Care should be taken during the treatment and convalescence, so as to avoid all chance of exposure to cold air.

The diet should be restricted and water allowed sparingly.

Laryngismus Stridulus

Laryngismus Stridulus; spasmodic croup, is generally met with in children between the ages of one and five years; it is not entirely confined to these young patients, but it frequently attacks those of more mature age, generally not more than twelve years.

The attacks are sudden with a crowing inspiration and cyanosis. These attacks are frequently mistaken for the holding of the breath on purpose by angry children.

In any event, the best treatment that I have found is 1/1000 grain of hyoscyamine hydrobromide placed under the tongue and allowed to dissolve in the mouth. I have found by this method that the antispasmodic action of the drug is in evidence in from five to ten minutes.

Membranous Croup

Because of the fact that membranous croup shows practically the same symptoms at the invasion as diphtheria, many Boards of Health require that all such cases be reported for examination and identification of the microorganisms of diphtheria prior to treatment. The two affections progress in opposite directions; the diphtheritic membrane running down the larynx while the croupous membrane extends up into the pharynx.

"There is no sharply marked difference between catarrhal and membranous croup, but cases occur so near the border that it is impossible to classify them." (Waugh.)

It seems to the writer that a differential diagnosis between membranous and catarrhal croup is superfluous at this time as the two are so thoroughly described in the textbooks, and most physicians have had much clinical experience with both.

I cannot, however, overlook the fact that in membranous croup the temperature will run from 101° to 105° F., while in catarrhal croup there is little or no elevation of temperature.

The treatment is of vital importance and I have found after several years of successful personal use, that, after the cleaning out of the intestines, calcidin in doses of 1/3 grain dissolved in one teaspoonful of hot water, every ten minutes, gives the most satisfactory results.

I have used this in many cases and with uniform success.

This is true of the treatment of both membranous and catarrhal croup; although, in the former, cases may occur where tracheotomy becomes necessary and this should be performed promptly, when indicated, in the interest of the patient.

W. T. THACKERAY.

Fowlerton, Texas.

FOR YOU "OLD TIMERS"

Can any of our readers give us pictures of old-time doctors traveling on horseback, with saddle-bags and the other paraphernalia of those pioneer days? Also, can you give us pictures of the saddle-bags themselves? The editor has undertaken to prepare an article about the methods of doctors of other days, and particularly the methods employed by practitioners in the middle west.

In this connection we should also be glad to get details concerning the drugs the doctor used—how they were prepared, how they were administered, how they were dispensed. Brief articles on this subject would certainly be of interest to our readers, and we hope that some of the old-timers will prepare such papers for us; but if you haven't time to write such an article, write me a letter anyhow and tell me something about these things.

ALFRED S. BURDICK.

Chicago, Ill.

"PNEUMONIA IN CHILDREN"

In CLINICAL MEDICINE for September, 1924, page 648, there appeared a short article by Dr. G. M. Fisher, Jr., of Amaranth, Pa., in which he says that "these prescriptions are as near a specific in medicine as you can get in the treatment of children and infants."

It is surprising in these modern times, to see a mention of a specific for a disease like

pneumonia; this dates back to a time when this or that specific treatment for pneumonia was lauded to the skies but soon forgotten; when a pet formula or treatment of this or that celebrated professor was assiduously followed, no matter what various symptoms the patient manifested; for, surely, no two sick persons have the same disease expressions or pathological symptoms, but a name like "pneumonia" is prescribed for. Nothing is said about the tongue, which would guide the physician in correcting an acid or an alkaline condition; since, if the tongue is fiery red, the soda in the prescription is entirely harmful—nothing about the bowels or the nervous manifestations.

The indications for remedies for the various pathological conditions or symptoms present in pneumonia are the same today as they were thirty-two years ago when the writer first became acquainted with the subject as a medical student; just as they were also before his time and will be when we are no more on this mundane sphere.

The symptoms in this disease mainly call for either specific medicines or the alkaloids of veratrum, bryonia, asclepias, gelsemium, aconite, a soda or an acid. The study of these remedies would enable one to prescribe with precision and, if the patient is seen at the onset, the sickness can be aborted and he can be up again in less than ten days. Such is and has been the experience of the writer. This is not written as an adverse criticism, but simply to point a way to more exact medication.

A. S. TUCHLER.

San Francisco, Calif.

CHRISTIAN SCIENCE AGAIN

A socalled "Christian science healer" has taken one of our honest and conscientious physicians to task in CLINICAL MEDICINE. He says: Dr. Murphy has conveyed a very wrong impression about Christian science. Christian science is not suggestion, mesmerism, nor the product of human will. It is the influence of one mind over another. Christian science is a religion, based upon and in accord with the teachings and practice of Christ Jesus, as the operation of Divine law. It is a minister of salvation which fulfills the promises of the founder of Christianity," etc., etc.

Now, where there is any organic trouble, there is no healing by the socalled *force* of Christian science. One of my patients took pleurisy on the 12th of April and, instead of calling me, he concluded to try Christian science and kept the false hope of Christian science working on him until June 27th when he was so weak that he could not stand, although he was told every day that he was better and well. He called me and, after examination, I asked him why he had called me and he replied: "The Lord told me to do so." I remarked if that was so the Lord wanted something done. I told him he had at least three quarts of pus in his pleural cavity and I demonstrated it by the knife, letting out more than four quarts of pus. He took a long breath and said that that was the first good breath he had taken in two months. He also said, "I know I cannot live as I am literally rotten; but, if I had called you two months ago, I might now have a chance to live, but I know there is none." He had lost his faith. He had been led along with false delusions until, as he said, there was nothing to look forward to but death. I might give many more cases which I have seen who were led by the blind hope of no science nor Christianity about it. But Christ says, "Woe unto you ye blind guides which strain at a gnat and swallow a camel."

When will folks cease to be led by such foolishness where there is certainly no science and mighty little Christianity, if any?

T. C. HUMPHREY.

Portland, Oregon.

"CREEPING ERUPTION"

In the September *Florida Health Notes,* just received, I noticed that Dr. Kirby-Smith has been conducting a free clinic at the State Board of Health Building, in Jacksonville, Fla., for the study and treatment of a new skin disease known as *Larva Migrans,* or creeping eruption.

The indentity and life history of the parasite causing the trouble had not been determined, but an effective line of treatment had been worked out which is ethyl acetate applied on gauze held in place by adhesive straps and covered with rubber tissue.

I have had one case of this creeping eruption; but, not being up in dermatology, I did not know until this article came to my notice that it was of special interest. I just applied resorcinol compound ointment, which at once soothed the irritation and, ultimately, cured the eruption without scars.

The patient was a lady past middle-age, who

had just come from Virginia. The lesion was on the left cheek, just in front of the ear. The itching, which was intense, extended from one to three inches beyond the borders of the eruption. In addition to the itching there was the intolerable sensation of something "creeping" deep under the skin.

Some months before, while in Virginia, after a visit to the dentist's office, she had an attack in about the same location on the right side of the face. After exhausting every remedy she could think of, or that was prescribed for her, she applied to the Board of Health Officer who gave her a clear liquid marked "poison" to apply. This at once cured the trouble, but left a patch of discoloration which seems permanent.

O. E. W. SWAN.

Lady Lake, Fla.

PHYSICIANS ENDORSE GOLDEN RULE SUNDAY

William A. Pusey, M. D., of Chicago, president of the American Medical Association, represents the medical profession on the Golden Rule Cooperating Committee formed for the purpose of encouraging the observance of Golden Rule Sunday, December seventh, the object of which is to promote the spirit of goodfellowship and peace among the nations of the world, and to provide sustenance for the 40,000 orphans under American care in the Near East.

On this day, we are asked to eat a simple meal, such as is served every day to the children in Near East Relief orphanages in Syria, Palestine, Greece and the Russian Caucasus and to make a thank-offering so that the children may continue under our protection until they are ready for self-support. Sixty percent of those dependent on American bounty are under twelve years of age, so they will need outside aid for at least four or five years more. Altogether, the Near East Relief has cared for over 100,000 children, the majority of whom have been trained for self-support. During the past year 14,000 were absorbed in industries or placed with families.

The medical profession has been greatly interested in the work of the Near East Relief because this organization has been a big factor in raising the standard of health in lands where sanitation and hygiene, as we understand the terms, were absolutely unknown until American philanthropy paved the way for the introduction of public health codes.

In the early days of American relief work, practically every child who entered a Near East Relief orphanage was a medical case. Now, conditions have so greatly improved that the orphanage death rate is lower than that of the average American city. This has come about as the result of heroic efforts on the part of American physicians and nurses who braved unspeakable conditions in ministering to the homeless little outcasts.

One of the outstanding achievements of the medical work of the Near East Relief is the successful battle waged against trachoma which blinded thousands of people every year—a condition that was accepted just as a matter of course until preventive measures were taught. Trachoma sufferers among the 30,000 children in Armenia and Syria have been reduced from 65% to 21%, according to the annual report submitted to Congress by the Near East Relief. This report gives the following summary of the medical work of Near East Relief during the past year: 33 hospitals and 61 clinics are maintained with an average of 395,427 treatments per month. The work is supervised by eight American doctors, 21 American nurses, 52 local doctors and 121 native nurses. Typhus epidemics were checked in Constantinople and Aleppo. The death rate at Alexandropol, the largest orphanage in the world, was reduced to 8.64% per thousand per year—an astonishing contrast to the death rate in 1921 which averaged 100 deaths in two months for every thousand children following their arrival from Turkey.

UNITED STATES CIVIL SERVICE EXAMINATION

The United States Civil Service Commission announces the following open competitive examination:

Physiotherapy Aide
Physiotherapy Pupil Aide

Examinations for physiotherapy aide and physiotherapy pupil aide will be held throughout the country on November 5 and again on December 10, 1924. They are to fill vacancies in the Public Health Service and the Veterans Bureau. The entrance salary in the Public Health Service for physiotherapy aide is $1,020 a year, with quarters, subsistence and laundry, and for physiotherapy pupil aide, $720 a year with quarters, subsistence and laundry, or $1,200 a year without allowances. The entrance salary under the Veterans Bureau for physiotherapy aide is $1,680 a year, and for physiotherapy pupil aide $1,000 to

$1,400 a year depending upon the training and experience of the appointee.

The duties of physiotherapy aides consist of administering physiotherapy in its several branches—massage, electrotherapy, hydrotherapy, mechanotherapy, thermotherapy; active, passive, resistive, and assistive exercises and remedial gymnastics; keeping daily record of the work and progress of each and every patient coming under direction and treatment; making the required reports of the activities of the reconstruction work in physiotherapy.

The duties of physiotherapy pupil aides are the same as those for physiotherapy aide, except that they are pupils under the supervision and instruction of the chief aide in all the work above mentioned.

Competitors will be rated on mental tests, practical questions, and education, training and experience.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the Board of U. S. Civil-Service Examiners at the post office or customhouse in any city.

SUMMARY OF REPORT ENTITLED "COMMUNITY ORAL HYGIENE"

Latest in the series of public health studies to be issued by the New York Association for Improving the Condition of the Poor is "Community Oral Hygiene", being a four-year report of a demonstration which the A. I. C. P. has been conducting in the Mulberry district of New York City. In a foreword to the report, Bailey B. Burritt, General Director of the Association, says:

"Communities are only beginning to awaken to their responsibility of providing a complete preventive dental program for school children. New York City in common with most communities has lagged behind Bridgeport, Boston and Rochester in providing an extensive dental service for school children. In order to promote this important work the A. I. C. P. has undertaken an experiment in an oral hygiene program for the children in the Mulberry district in the hope that the results of this experiment might lead New York City and other communities to provide an adequate dental service for school children on a permanent basis."

The report, which was prepared by J. C. Gebhart, director of the A. I. C. P.'s Department of Social Welfare, points out that it was agreed at the outset that such a demonstration would be most significant if it were confined to children, particularly those of the younger ages, and if the emphasis were placed upon educational and prophylactic work. In general, the policy has been to adopt those features of the work in Bridgeport and Rochester which were suited to the situation in the Mulberry district.

The following steps, arranged in the order of their relative importance, were deemed essential to the program:

1.—Prophylactic cleanings at least once a year, and twice a year if possible, for all children in the first five grades of school.

2.—Extraction of unsavable and diseased teeth, to put the mouth in a hygienic condition.

3.—Prophylactic fillings (to prevent decay) in all first permanent molars and reparative fillings where needed in first molars.

4.—Nitrate of silver treatment to arrest decay in deciduous teeth which are retained longest.

The fourth point, that of providing nitrate of silver treatment for temporary teeth, was added later after experience had clearly demonstrated that the treatment of the decayed surfaces of such teeth with nitrate of silver was sufficient to arrest decay and to enable the children to retain them for the proper length of time without imposing the unwarranted expense of placing permanent fillings in teeth about to be shed. While the procedure outlined above was drawn up primarily for school children, it has been followed also in the work with children of preschool age.

The work was first begun October 1st, 1919, in one of the public schools of the district with a full-time dental hygienist installed in the kindergarten room. In January following, a dentist was secured on half time. By June, 1920, this work had developed to such a point that a well-trained dentist with broad vision and executive ability was needed to develop the work along sound lines and to keep the staff inspired in their task. Besides the supervisor the staff now consists of two full-time dentists and two half-time dental hygienists.

The plan has been to concentrate efforts in the schools where no work has been done and where work may go on from year to year without interruption. In this way there was definite assurance that the work was being done where it was most needed and where the continuity of the service would enable the A. I. C. P. to secure tangible results.

An extension of the service to pregnant women was begun in February, 1922. The purpose of the experiment was to select a limited

number of pregnant mothers, preferably those who were experiencing their first pregnancy, for intensive dental care and instruction in diet and oral hygiene. In this way it was hoped that the mothers would be encouraged to begin early in training their children in the care of the mouth.

The actual improvement in mouth conditions is best shown in the annual survey made by the A. I. C. P.'s supervisor for the purpose of determining in advance the amount of work needed during the year. The children are classified as to those needing extractions and fillings of various kinds and those who need no reparative work. Since the survey is not made at exactly the same date each year, obviously this picture is not altogether reliable; for if the survey is made quite early in the school year, before much work has been undertaken, a much less favorable picture is given than if made later, after many of the worst conditions have been cleared up. In spite of these variations, however, the annual classification of the children shows a steady improvement.

The A. I. C. P. has now made four annual surveys of the mouth conditions of the children of Public School 106, where the most intensive campaign has been conducted. The number of those needing no corrective dental work and in those awarded diplomas for having kept their mouths clean has steadily increased. There has also been a marked reduction (from 85.4 percent to 46.4 percent) in children requiring fillings, for the most part in first permanent molars. While the proportion needing fillings is slightly greater than last year, the proportion needing extractions has been reduced from 40.3 percent to 32 percent. This is again a most encouraging sign, for it means that more children have savable teeth than last year and, for such, fillings rather than extractions are indicated. There is also direct evidence that the fillings required are of a far less extensive nature than when the work first begun; for in 1920, 60 percent of the fillings were urgent, while in 1923 only 37 percent were urgent.

While approximately 3,000 children have been served annually through the dental clinics, approximately 1,200 of this number received intensive care, including extractions, fillings and nitrate of silver treatment. Obviously, the per capita cost for these 1,200 will be much higher than the per capita cost of the total 3,000 served. The practice has been to divide the total annual expenditures by the total children reached to secure the gross per capita cost. Thus, for the first year that complete records were available, the gross per capita cost was $4.17. This item, however, included several expenditures for equipment and educational literature. By the following year the per capita cost had been reduced to $3.79.

The reduction in cost is due both to an actual decrease in the amount of corrective work to be done and also to the fact that a larger number of children was reached through the prophylactic service, where the cost is less. During the last year the per capita cost had increased to $3.99. This increase is due in part to extending the service to preschool children, which at first involved considerable loss of time because of unkept appointments. It seems reasonable to conclude that a dental service of this kind cost approximately $4.00 per child reached. The A. I. C. P. also presents in its report the approximate average cost of particular operations, prophylactic cleanings, fillings, extractions and nitrate of silver treatments.

There are, indeed, few health services, the report points out, which for an average annual per capita expenditure of $4.00 can show such unequivocal and far-reaching results as those accomplished by this demonstration. The full implications of these results will not be fully realized until oral hygiene is accorded its proper place in preventive medicine. The increase in clean, healthy mouths, the saving of first permanent molars and the reduction in the incidence of dental caries have proceeded during these four years at a rate little dreamed of when the work was begun.

The demonstration has proved that a dental service which is administered as an integral part of the daily school program produces the most widespread and lasting results. Experience has shown that, when the dental clinic is in the school building, children can be sent directly from the class-room to the dental clinic with a minimum of waste time both for pupil and operator and with a minimum amount of confusion and disruption of class-room work. The hearty support and cooperation of the school officials in promoting the educational aspects of the dental program could hardly have been secured if the dental clinic were not in the school building.

Let Us Play

Conducted by All of Us

The Play

AS Hamlet says: "The play's the thing". However, it will not be necessary here to go into the psychology behind this statement of Hamlet's, for our present purpose.

The cold weather months are upon us. Outdoor recreation is being put on the shelf, while indoor pastime is about to be taken from the moth-balls. And, among the indoor playthings, the play is the thing; whether opera, drama, sketch, tableau, or playlet. They afford an outlet for various clubs, societies, church choirs, Sunday-school classes, etc., to give vent to their pent-up energy and the achievement of their various ambitions.

So, the play's the thing.

When one looks around him and sees the number of stage-struck and movie-struck, it can lead to but one conclusion: The desire to act must be an infectious disease; etiology, an air-born germ, not yet isolated. At present, there seems to be no vaccine or serum which will establish a fair degree of immunity. Anyway, who would want to establish an immunity to a disease or epidemic of this nature? Probably, the best thing to do is, to outline some form of treatment: Like in the good old days, when some youngster got the measles, some people exposed all the rest of the "kids" in the neighborhood so they could all have it and have it over with, let us expose everybody to the stage and, if it takes, we will tell you how to treat it.

Acting is a funny little game, enjoyed by many, understood by few. It is simple enough when you do understand it; yet scantily comprehended by the majority, even to and including some within the profession. It is perhaps no better understood by some actors than medicine is understood by some doctors.

Boiled down to a concentrate, by an analysis that brings us to the kernel of the nut, there is at least one answer to the question, what is acting? That answer is: Acting is purely and simply a business. The business of imitation, impersonation or the portrayal of character by one who himself is not such a character.

Of course, the average individual has, or thinks he has, some idea of acting. This idea he gleans principally from viewing actors. Few, perhaps, have the opportunity to go beyond this: View, interview, and be one. Thus the average and popular view entertained of the stage and all that pertains to it is somewhat in error when compared with the keener analysis of the facts as revealed to one who gets a real contact impression. Consequently, the beginner, the average amateur, the casual participant in stage work is not only quite at sea but endowed with much misconception concerning the art of acting.

The first thing I want to impress upon my readers is the statement that acting is purely a hard-boiled, case-hardened, unsentimental, unemotional, unromantic business proposition. The actor is confronted with a definite and specific task and it is up to him to carry it out just as the boys at the front had to do. You can not be an actor and be a traitor to your duty at the same time. The orders of the stage director are orders and orders must be obeyed.

As I will try to explain, acting is one phase of a high degree of leger-de-main, or slight-of-hand, in which the audience is actually being fooled. You are watching David Warfield in the Music Master. All you can see is the Music Master; but, you are really looking at David Warfield. He is simply fooling you. Just as the slight-of-hand performer gets rabbits out of a silk hat, so is David Warfield getting the Music Master out of himself.

There is a technic involved in this art of acting, just as there is a technic involved in surgery or in many other professions. And, as a rule, this technic is purely a business matter devoid of superfluities, idle sentiment or emotions, much to the contrary of popular opinion. All that one thinks he sees of this nature is simply this fine technic that the

actor is employing to fool his audience. And it is not true, as is so frequently believed, that an actor "loses" himself in his part. Such a thing can not be done and still carry out the scheme of the part at the same time. Every movement, every action, every word spoken is constantly under the direct control and supervision of the actor's ever-active and directing mind.

It is the popular error of the average beginner or amateur to try to lose himself in his part or allow himself to be subjected to emotions. It is this which stands out prominently and at once impresses an audience as amateurish. So, the first essential thing to know, when you are assigned to a part, is to realize that your own consciousness must be ever present, dictating and directing your every word and every movement. However, there is this technic which attaches to the art of acting by which you cover up or conceal from your audience all that pertains to your natural self, while you are simulating the character you are supposed to be.

I have tried in this broad sense to give an idea of acting without going into details. Details are numerous, however, and could cover pages. There is not room or space for all of them, but a few may help to keep you from some of the pitfalls if you are assigned a part this winter.

Don't get foolishly sentimental and lose control of yourself. Remember that acting is strictly business. Confine yourself, while on the stage, explicitly to the "work" in hand. Make no false moves, assume nothing that the part does not call for. When you stand, stand; when you sit, sit; when you walk, walk. In other words, don't get things mixed. When standing, don't keep shifting from one foot to the other. Whatever you do, don't fidget. Be a statue except when your part calls for something else. There is nothing so disconcerting to an audience as to have their attention attracted or detracted by restless movements of some actor who has no excuse for moving.

Remember that everything you do is rank imitation; but keep your audience "buffaloed" and don't let them know it.

Keep your exits and entrances well in mind, also your cues. Don't lag or dawdle with any of them. Pick up your cue rapidly and thus keep the work progressing, "snappy". Assume the appearance of nonchalance if you can but, at the same time, don't let the audience see through it and watch you "work". In spite of all I have said about fooling the audience, don't fool yourself. Put your whole heart and soul into your work and the task that confronts you. You can not dream and work at the same time. Among other things, get a full conception of the part you are to take. Of course, this duty belongs strictly to the stage director, but it is up to everybody to do his share for himself. At any rate, team work is the essence of the key to success.

The good friend on whom I rely for scanning my notes accuses me of being iconoclastic. I am sorry that this is so. Perhaps I have shattered a number of ideals for many of you. If I have, I have been cruel only to be kind. For, if any one expects to take part in a play this winter, he had better be a success with shattered ideals than a failure as an actor and retain those ideals.

On the other hand, don't misunderstand me regarding sentiment, emotions or romance. Although I have said that it has no direct bearing on acting, the profession itself is full of it, reeking with it, steeped in it; perhaps too much so for its own good. The average actor lives in an atmosphere all his own that is actually dense and befogged with sentiment, emotion, romance and superstition. Often, the greater the actor, in the generally accepted sense, the greater the tendency to become surrounded with this atmosphere "theatrical". Sometimes, I think, this is a detriment to actually better acting, but the public seldom knows this; being carried away by a hypnotic acceptance of greatness and of wonderful acting.

Take for example Sarah Bernhardt, one of the greatest and most unique characters that ever graced the theater. Great as she was, wonderful as she was, a magnet that could attract brass as well as steel, she had her short-comings as an actress. She played well parts that coincided with her own personal psychology, but I have my doubts as to her rendering, if assigned to parts which did not dovetail with her own psychic atmosphere. I have seen stock actors and actresses of unknown fame who could discount her; yet the average audience would not know that they were seeing really better acting. True, this:

"Full many a gem, of purest ray serene,
The dark unfathomed caves of ocean bear.
Full many a flower is born to blush unseen,
And waste its sweetness on the desert air."

Just to let out some of this atmosphere in which "the divine Sarah" lived, I append a

few notes I have gathered from time to time regarding this famous woman. As one observer puts it: "Her entire existence was theatrical"; "Everything to her was acting"; Eating, sleeping, walking, social intercourse; in fact, nothing was exempt, nothing was accepted in any other light;—acting—acting—acting, drama—drama—drama.

"Always looking for it, pushing the chessmen of life around to make them assume a theatrical aspect, whether it was normally there or not. Every situation to her was a stage setting."

As an illustration of this, one of her contemporaries, a man who was with her several years, says: "I recall the last time I saw her. It was after I had established myself as an American, and I went back to Paris for a visit. I called upon her in her loge at the theater where at a flash I saw that time had dealt cruelly with her. But, I knew Madam Sarah. I admired her tremendously, too; but I felt at a great disadvantage, because, as I approached her, I knew that she expected me to say something flattering, so that her friends might hear. 'Well, well, José she called out as I approached, so that the admiring group around her would be silent, to hear what I said. She looked a wreck, so I could not tell her she was beautiful which she loved to hear. I had just seen her acting in an indifferent play and I could not tell her that I had been admiring her acting. And I believe that she realized these things.

"As I bent to kiss her outstretched hand she added: 'How is America, my dear José?' That was my cue. 'Waiting for you to come back', I said. At this her face beamed, and she folded her arms about me. 'Ah, you see' she asked the others about her. 'You see, you hear what José says?' It was always the theatrical with her".

Another instance is cited when, touring America, she was passing through Arizona. The train had been stopped in anticipation of a holdup which proved to be somewhat of a false alarm. When the news was carried back to Madam Sarah's compartment, that the train crew found no guns on the supposed bandits, she exclaimed, "what a pity".

We can't all be great and it may be much preferred to gain some recognition in amateur work or in lesser stock; to be a satellite or an asteroid whose magnitude is calibrated on technical measurements, than to be gauged entirely by stellar brilliancy. So, the play's the thing. Get into it with your clubs and societies this winter, but eschew stellar aspirations.

F. N. RICHARDSON.

Cleveland, Ohio.

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[If any of our readers are contemplating any theatrical stunts this coming winter, we suggest that they communicate with Doctor Richardson.—ED.]

What Others are Doing

AMBULANT TECHNIC IN RECTAL AILMENTS

At the Dr. J. D. Albright Ten-Day Clinic, which this year was held in Philadelphia, 42 patients were treated in accordance with the methods for some years recommended by this well-known specialist in rectal ailments and the author of a book of 455 pages on the subject. In this series were 16 cases of internal hemorrhoids, 5 of fistula, 1 of ischiorectal abscess with fistula complicating and several of anal pruritus.

The doctor makes frequent use of butyn in his work, for accomplishing local anesthesia. In fistula operations, he employs a 1/6 of 1% solution, his method in complete fistula being described as follows:

"Under the local anesthetic effect of 1/6 of 1% butyn solution in sterile water, the skin and tissues were divided from the external opening to the anal margin, exposing the external sphincter. Four days later, a portion of the muscle was cut, under local anesthesia as before, by passing my fistula knife into the tract to the internal opening, and gradually cutting the more external fibres as it was withdrawn, reinserted and again withdrawn until about half the muscle was cut. This procedure was repeated five days later, again cutting some of the fibres, so that only a thin supporting portion of the muscle remained. This could not be cut without allowing an interval sufficient for repair, but enough was done at the clinic to demonstrate every detail of the method. This patient made a perfect recovery within ten weeks of the first incision."

Of sacral fistula, he says that it is usually the sequel to a dermoid cyst and therefore a careful search for a tuft of hair should be made. There was one such case treated in the clinic. "In this case," writes Dr. Albright, "our search was rewarded by finding quite a bunch of black hair wedged close to the anal margin after the first incision, dividing the four islands of skin between the five openings, was made under butyn anesthesia. Later the cross tract was similarly laid open. The patient was discharged August 15th entirely well and he has remained so."

In the abscess case, an incision of generous length was made under butyn anesthesia and enough tissue was removed to leave an opening the size of a dime. This insured free drainage and two days later our patient walked in with scarcely a limp and expressed himself as practically free from pain. There had been much drainage and the induration was well dissipated. Further examination now revealed a sinus extending inward, along the anal canal, as yet incomplete.

Under conditions as they existed when the patient was first seen at the clinic, an internal opening would probably have resulted within a week, the pent-up secretions burrowing in the direction of least resistance.

A few days later, the tissues between the cavity and the anal canal were partially divided and within the next few weeks all operative work was finished by complete division of all intervening tissue, the edges trimmed and all debris removed, assuring recovery by granulation. No sutures are ever used in fistula work.

Conservative methods are ideal in these cases. In Dr. Albright's experience and present practice, 95 to 98 percent of all fistulas as they come are absolutely cured by ambulant methods. Of the remainder, half can be simplified and greatly relieved and benefited, while the balance are usually inoperable by any method except at great risk or with certainty of loss of sphincteric control. Some are so emaciated, with reduced vitality and lowered resistance that hope of cure must be abandoned, regardless of the method or operator. He has cured many cases in which the radical operation had proved unsuccessful, even though done by nationally famous surgeons in well-known institutions, and it should not be forgotten that the majority of operations leave the parts in a state differing materially from the normal and render the task of the ambulant operator considerably more difficult.

Pruritus is usually complicated by anal sinuses or pockets, whether readily visible or not, which must be attended to ere the local distress can be subdued. It is necessary to

remove these pockets under local (butyn) anesthesia, and to treat the accompanying proctitis, which last may take several months in old chronic cases.

OBSERVATIONS BASED ON 300 GOITER CASES

As reported by Jackson (*Wisc. Med. Jour.*, Aug. 1924), approximately three hundred children are now receiving treatment for the prevention or cure of colloid adolescent goiter at the Jackson Clinic. These young people are observed at intervals of three months and accurate measurements of the neck are recorded in centimeters after each examination. Since an accurate study of the cases was not begun until 1923, it is still too early to draw any except general conclusions.

A number of different iodine preparations are being used, including those intended for external application, which however were dropped some time ago as inefficient or failing to contribute noticeably to the general results. While several of the iodine tablets for internal administration have proved effective enough, some were said to be objectionable on account of their large size or disagreeable taste. Very palatable tablets in which 10 milligrams of iodine are incorporated in a chocolate of cocoa base are now available, and these should be chosen for anti-goiter treatment.

The dose varies. Between the ages of ten and fourteen years in the absence of any colloid enlargement of the gland, only 10 mg. per week is given as a preventive. In older children, or in those with colloid goiters, this dosage is usually doubled. Again, in children with colloid goiters containing small adenomas, only 5 mg., or in some cases, 10 mg., a week is prescribed. In these cases iodine is not administered with the idea of getting rid of the adenomas, but merely to place the gland at rest and retard the growth of the goiter. The parents of such children are informed that treatment has been begun too late to effect a cure and that in all probability surgery will be indicated when the patient is between twenty-one and thirty years of age as a prophylactic measure against the development of a toxic adenoma, a substernal goiter, or a cystic or malignant goiter.

Thyroid extract has been found superior to iodine in certain cases, especially in the vascular colloid type, as observed by Plummer. In these cases it has often been possible to achieve a remarkable reduction in the size of the goiter in a short time. In many instances, however, results have been transitory and the addition of iodine has been necessary to achieve a permanently satisfactory result.

The treatment of colloid goiter by iodine is often a tedious procedure, and patients should be advised early that results will be obtained only by following the treatment for a period of years. Results vary greatly; in some patients a remarkable reduction in the size of the gland is noticeable in a few months' time, while in others there is little or no improvement. Unquestionably more can be accomplished by prophylaxis than by treatment.

While the great majority of children tolerate iodine readily, mild reactions, such as palpitation, tachycardia and nausea occur in some instances. Occasionally there is a factor of neurosis, but in most cases merely reducing the dosage relieves the symptoms. Since giving smaller doses of iodine over a longer period of time, the tendency to iodine intolerance has been less frequently noticed.

Girls who refuse to limit their activities and take enough rest to permit their overwork thyroid glands to produce a sufficient supply of thyroxic should be required to withdraw from school or otherwise curtail their activities for at least a year. In many cases in which this has been tried Dr. Jackson has observed not only a remarkable improvement in the general physical and mental stamina but also considerable reduction in the size of the gland. In some instances the substitution of lighter forms of gymnastic exercise for the usual strenuous requirements is of material assistance in the reduction of the thyroid gland. The removal of septic tonsils proves of some benefit in certain cases.

When it is impossible for a person less than twenty years of age to go to a physician, iodized salt may be taken without harm, but such treatment is inaccurate. Iodine may readily induce hyperthyroidism in patients with adenoma, and for this reason, as well as because of the inaccuracy of the dosage, he does not feel justified in recommending or encouraging the use of commercial iodized salt.

AN AID IN OBSTETRICS

The Journal of the Iowa State Medical Society, for August, has an interesting paper by Schooley, in which the writer narrates his obstetrical experiences. As these experiences were collected in a small country town during twenty years of practice, one knows that

they are most varied and suggestive of the resourcefulness most frequently encountered in physicians who have to rely on their own efforts.

We are all practically agreed, says he, that severe pains of labor should and can be considerably if not entirely relieved. For this, ether is being used quite extensively, and is no doubt very satisfactory in the hands of those who know how to use it. Schooley has never used it for labor except for complete anesthesia. The co-called twilight sleep has had its day, as he sees it; but, he admits having had but little experience with it and that this fact may be the reason for his not taking kindly to the idea. And he adds, in this connection, that "it may be more my fault than that of the drug."

He has resorted frequently to chloroform, which on the whole has proved satisfactory. "There may be contraindications to its use in a small percentage of patients, and if I thought so I would surely leave it out. If used with judgment it is practically safe, leaves no bad after-effects, and does relieve much suffering."

He has also used benzyl benzoate for dulling the after-pains of women in labor and credits this new drug with being quite efficient. Because it is practically nontoxic, he finds that it can be given somewhat freely without apparently injurious effects.

Certainly the relative innocuousness of benzyl benzoate is much in its favor, especially in cases where one would give chloroform or narcotic drugs with reluctance.

A TECHNIC FOR MILK INJECTIONS

Montgomery affirms (*Amer. Med.*, June 1924) that, for best results, milk protein injections should be made intracutaneously.

Time and time again, it has been noted clinically that, 10 to 20 hours after a patient with a fresh epididymitis is given an intracutaneous injection of a non-specific milk albumin, excretions from the urethra, which had ceased with or prior to the appearance of the epididymitis, reappear and the pain subsides. A similar injection into the subcutaneous tissues, however, is absolutely ineffective.

As he sees it, the trouble in the latter case is that the agent does not remain in situ long enough to stimulate the involuntary nervous system, by way of the terminal nerve fibres. The pressure of the skin, owing to its elasticity, soon drives practically the entire dose into the fatty tissues beneath. The result of such rapid dispersion is either an insufficient stimulation or none at all, the therapeutic effect being nil.

In an intracutaneous injection, a localized artificial edema of the skin is produced under considerable pressure. The injected fluid spreads practically through the entire thickness of the skin, by gradually filling all intercellular spaces in the epidermis and the spaces among the collagenous bundles and elastic fibres of the corium. Pressure is exercised in every direction but strong resistance is met in the close meshwork of the reticular layer. Vessels and lymph spaces are compressed and nerve terminals are subjected to mechanical and possibly chemical action. A section of such a wheal would show how the pressure exerted at injection has forced the fluid into every direction except downward into the subcutis.

Hence it is evident that, so long as the injection is made truly intracutaneously, there is no possibility of even the smallest quantity of the solution escaping. This fact explains the long duration of the stimulative action of intracutaneously injected fluids.

In making an intracutaneous injection, it is impossible, even when applying considerable pressure, to force more than 0.1 to 0.3 Cc. at the most into one wheal. The resistance felt toward the end of the injection is the best indication as to the correct position of he needle within the skin. A distinctly circumscribed, snow-white wheal rises almost perpendicularly from the surrounding skin, the sweat pores and pilosebaceous orifices remaining deeply indented. An encircling red ring soon becomes visible and, after ten minutes or so, the wheal itself generally turns red. The cause for this is readily understood. In the course of the injection, the vessels have been compressed and only quite gradually (as resorption from the derma takes place very slowly) circulation is reestablished, with a compensatory vasodilation. It is during this period of gradual resorption that the stimulation must materialize.

The extensor surface of the forearm is the preferential site of injection. Here the skin is not so firmly attached to the subcutaneous tissues. A fold is therefore easily picked up between the index finger and the thumb and the technic for intracutaneous injection can be followed readily. On the extensor surface of the upper arm, the skin is so firmly bound down to underlying structures that it is difficult to determine whether the technic is flaw-

less. A 2 Cc. all-glass syringe, with a tightly fitting piston and a 25-gauge, three-fourth-inch needle, is the most serviceable. The needle should be inserted almost parallel with the skin, the bevel upward.

The writers' experience with intracutaneous, nonspecific protein therapy has been limited almost entirely to such dermatologic conditions as acne, furunculosis and pustular eczema. Using a special preparation of milk albumin, the results have been exceedingly interesting.

A TREATMENT FOR PERSISTENT PRURITUS

Dr. M. P. Moorer of Asheville, N. C., contributes to the Journal A. M. A., the following suggestion for treating pruritus of the anus, scrotum and vulvæ. He says:

Under thorough infiltration of the skin and subcutaneous tissue extending one-half inch beyond the area affected, with 0.5 percent quinine and urea hydrochloride solution, itching is at once arrested, excoriations rapidly heal, and within a few days the skin resumes its normal smoothness and luster. Anesthesia, however, persists for from several days to as many weeks and, at the expiration of this period, a second and sometimes a third infiltration may be required. It has not been necessary to employ a fourth infiltration in any case thus far treated, as the causative factor is searched for, and if found, eliminated during the days of freedom from itching produced by this simple measure. Occasionally, one injection suffices, and the patient remains away for months; but he finally returns to have skin tabs removed or other operative rectal procedure (which he was told in the first instance would be needed to insure permanent relief) attended to.

The technic consists in rendering the part perfectly clean and then injecting a 1-percent procaine solution into a small area. The remainder of the diseased skin is then infiltrated, after which the underlying subcutaneous structure is ballooned out with quinine and urea hydrochloride solution until the patient complains on resuming a chair that he is "sitting on a cushion." The precautions to be observed are as follows:

First. A decided neurotic element exists in all pruritus cases; therefore, it is wise to administer hypodermically one-fourth grain (0.01 Gm.) of morphine before beginning this treatment, for the prevention of shock; otherwise, profound depression, resembling greatly the first few hours succeeding a grave surgical operation, is likely to follow.

Second. Not more than 10 Cc. of 1-percent procaine should be used, but quinine and urea hydrochloride solution from 0.25 to 0.5 percent strength may be used in any necessary quantity, as much as 200 or 300 Cc. (quinine and urea hydrochloride solution in greater than 0.5 strength may produce a slough or an unpleasant induration).

Results in a number of cases have been as good as with a Ball or Lynch operation, and infinitely better than with the cautery.

The pressure on the terminal nerves produced by the forcible injection of fluid in large amounts brings about a temporary paralysis equal in duration to that produced by severance of their filaments with a knife, and to the mind of the average patient is much more acceptable.

THE FALLACY OF ALCOHOL DISINFECTION

In the *International Journal of Medicine and Surgery*, for Aug. 1924, we find a well-deserved condemnation of alcohol disinfection.

There is no reliable bacteriological evidence to sustain the notion that alcohol has merit, and the textbooks on materia medica give no definite information on the subject. The most that can be claimed for it is that it is a mild antiseptic, and not to be classed among the powerful agents of this group. Consequently, no dependence can be placed upon its use for skin and hand disinfection. While it removes oils and fats from the skin, as well as bacteria in the superficial layers, and in that way secures a cleaner surface, it appears to be devoid of any genuine germicidal effect. For this reason it is entirely unsuitable for the sterilization of surgical instruments.

The investigations of Nye and Tracy *(Boston Med. and Surg. Jour.*, No. 16, 1923) have clearly shown the fallacy of this method which is still in common use. The occurrence of two fatal cases of postoperative, gas-bacillus infection led them to examine bacteriologically all objects that had been in contact with the wound. This search disclosed that the knives and scissors that had been employed in these cases were the carriers of the infection. They had become contaminated in a previous operation upon a patient suffering from gas gangrene following a gunshot injury. After use the instruments had been washed with soap and hot water and kept in a dry place and

before operation had been immersed in 70-percent alcohol. Evidently this procedure had been inadequate to destroy the bacillus aerogenes with which they had been infected in the previous operation.

That Nye's and Tracy's observations have received the attention they merit is evidenced by a recent article by Professor Bruning (*Deut. Med. Woch.*, May 30, 1924). He has been impressed with the unreliability of alcohol as a disinfectant for instruments, for which purpose it is still largely employed by surgeons in Germany. Without decrying its value in skin and hand infection, he points out that we have to deal here with two different propositions. While alcohol inhibits the growth and activity of germs on the skin, it completely lacks the germicidal property which is essential in the sterilization of instruments. As is well known, the antiseptic effect of 60- to 70-percent alcohol is greater than that of stronger concentrations; but, even when applied in proper strength, it is much inferior to the customary disinfectant solutions.

The boiling of instruments is effective but inconvenient. Besides, boiling has a bad effect on cutting edges requiring extreme sharpness. And if honed afterward, the instrument may become contaminated.

The new mercurial germicide, metaphen, appears to serve the purpose admirably, a 1:5000 solution accomplishing thorough disinfection in about ten minutes. Moreover, it affords solutions that are transparent and do not stain the hands.

IMPAIRMENT OF RENAL FUNCTION UNDER THE ARSPHENAMINES

An important investigation was recently concluded by Drs. Raiziss and Brown (*Archiv. of Derm. and Syphil.*, July 1924), the object of which was to discover what symptomatic effects, if any, various doses of the arsphenamines have on the renal function of animals.

The plan was to give one animal one massive dose approaching the maximum tolerated dose for rats; to another animal one large dose (about one-half of the maximum tolerated dose); then, to a third the usual therapeutic doses, at intervals of three or four days. The work was done in duplicate and frequently in triplicate to insure reliable results. The animals were also kept under uniform conditions and on an approximately constant diet.

In one series of animals, five times the usual therapeutic dose was given. Yet, all of them not only survived but recovered completely within from ten to sixteen days. There can be no doubt, however, as to the injury to the kidneys caused by this dose. The nonprotein nitrogen, urea nitrogen and creatinin content of the blood rose immediately after injection and reached a crisis on the third day, when the content of each of the three waste products in the blood was the highest, the differences in the actual quantities found in each of the three experiments probably being due to the varying toxicities of each of the three samples of the drug used, although the individual idiosyncrasies of the animals must also be taken into account. After the third day the condition of the kidneys began to improve, and the recovery was complete within a week or two.

Now, the largest single dose usually employed in the therapy of human syphilis is 0.6 Gm. As the weight of the average person is assumed to be about 60 kilograms, the dose given in the practical treatment of syphilis is 10 mg. per kilogram. Experiments on a further series of animals, with smaller doses than were given in the two first series, indicate that single therapeutic doses of the drug result in no apparent disturbance of the renal function.

The results, however, could not be assumed to represent the approximate final effect of the medicament on the human kidneys, as the patient usually receives his treatment in courses of from six to twelve injections at intervals of one week or oftener.

The investigators, therefore, injected into two rabbits therapeutic doses of arsphenamine twice a week, at intervals of three and four days, for six weeks, making a total of twelve doses, the combined weight of which exceeded the maximum tolerated dose for rats, which was found to be 100 mg. per kilogram.

The results were satisfactory. Not only did the renal function of the animals remain unaffected by the repeated injections of the drug, but the rabbits even gained in weight.

Summarizing their observations, Raiziss and Brown conclude that single massive doses of alkalinized arsphenamine produce severe nephritis often followed by death; that single large doses of the drug produce acute nephritis, which generally clears up within from ten to sixteen days, but that repeated therapeutic doses do not disturb the renal function at all, it being assumed of course that a drug of sterling quality is employed.

Neoarsphenamine was studied no less thor-

oughly with these findings: that single large doses of neoarsphenamine (about ten times the normal therapeutic dose) produce acute nephritis, which clears up in a few days; but that repeated, normal, therapeutic doses of neoarsphenamine do not injure the kidneys.

Further, compared weight for weight or on the basis of arsenic content, neoarsphenamine is more than twice less injurious to the kidneys than arsphenamine.

Albeit, as favorable as are these conclusions, it is advised that the renal function be watched in all cases.

A CASE OF ARSENICAL DERMATITIS WITH TREATMENT

Harrell (*Va. Med. Mo.*, Aug. 1924) considers sodium thiosulphate a most effective drug against dermatitis such as sometimes follows the administration not only of arsphenamine but also sodium cacodylate and Fowler's solution. It is known that exceedingly small doses of the latter has, at times, in arsenic-susceptible persons, brought out a general rash.

The sodium thiosulphate treatment is based on the fact that many of the heavy metals, particularly arsenic, mercury, lead, bismuth, zinc and copper may be precipitated in inert form by non-metallic sulphur. In case of poisoning with any of these, if we can bring about this precipitation, we at once put an end to its toxic action and allow the body to begin the process of repair. The prospects of recovery and the period of disability will naturally depend on the extent of the damage before treatment was undertaken.

The sulphur compounds that have been used for this purpose are: calcium sulphide, calcium sulphite and sodium thiosulphate. Of these, the last has found most favor as it is readily soluble and is not toxic in doses up to two Grams, intravenously.

The drug may be given by mouth, but its intravenous use is preferable. Only a chemically pure, sterile sodium thiosulphate should be used. If such a preparation is not available, it may be given by mouth in doses of from one to fifteen Grams in solution.

The writer describes in detail a case of dermatitis following six doses of arsphenamine, which he treated successfully with sodium thiosulphate.

The patient was a colored man, age 37, with a diffuse, weeping, arsphenamine dermatitis involving the entire body, extremities and face. The exudate was of such severity that the underclothing was kept damp and small droplets were constantly appearing on the face. The hands and feet were much swollen and showed numerous blebs a centimeter or more in diameter. There was a well-marked conjunctivitis. Temperature 103°, pulse 108.

There was no intravenous preparation of sodium thiosulphate available, so he was given an intial dose of 2 Gms. by mouth, followed by 1 Gm. three times daily. The following morning, the temperature had dropped to 100°, the patient was feeling much better, and his appetite had returned. At the end of forty-eight hours, the temperature had dropped to 99° and the body was dry. The following day the temperature was normal, there was no moisture anywhere and the hands and feet were beginning to desquamate. On the seventh day the conjunctivitis had disappeared and the patient was walking about the ward. Numbness and tingling, which had been very troublesome soon after admission, had also disappeared.

He was discharged on the eleventh day. At this time, desquamation was complete over body and was well advanced on hands and feet. The general condition was excellent.

The condition is not one of frequent concurrence. Moore and Keidel report twenty-one cutaneous reactions in 47,000 injections. Stokes and Cathcart report thirty-eight reactions in 43,000 injections. These figures would indicate an incidence of one reaction in about 15,000 injections. At the present time, with the use of a sterling brand of arsphenamine, its occurrence is probably not even so frequent as these figures indicate.

Among the Books

MILLER: "COSMETIC SURGERY"

Cosmetic Surgery. The Correction of Featural Imperfections. By Charles Conrad Miller, M. D. Illustrated. Philadelphia: F. A. Davis Company. 1924. Price $4.00.

"With the tremendous changes in the character of the people, and the developing of a pleasure-loving race in place of the more serious types of the past, there has come more or less of a demand for cosmetic operations. A certain percentage of surgeons wish to take advantage of this demand, but feel more or less handicapped by the lack of accessibility of descriptions of plastic methods applied particularly to this part of the body, so with the hope of being helpful, in the face of possible strictures from the best in the profession, the writer offers these pages to those who may be interested."

In this, the last paragraph of his preface, the author describes exactly the conditions which render all arts which beautify or at least render less ugly—the individual, most remunerative.

The repair of injured tissues; the skillful fabrication of lost facial parts are no longer the chief aim of the plastic surgeon. His *metier* to-day is to "improve on Nature's plan" and aid, by cunning incisions, in concealing the finger-prints of time.

To know what to do and just how to do it in this extremely lucrative but somewhat dangerous field means everything and in this profusely illustrated volume, Doctor Miller gives all the information the surgeon could ask. It merely remains for him to perfect his technic.

MAYO CLINIC PAPERS

Collected Papers of The Mayo Clinic and The Mayo Foundation. Edited by Mrs. H. M. Mellish. Volume XV. 1923. Published June, 1924, Philadelphia and London: W B. Saunders Company. Price $13.00.

As is well known, the Mayo Brothers Clinic issues annually, in one volume, the contributions which have appeared in the medical press from all of the members of that institution.

The present volume shows an innovation in that most papers are reprinted in the form of abstracts and that the titles of all papers published are given in connection with the diverse groupings by subjects.

Whether the innovation is a good one, is, to the Reviewer at least, highly problematical. True, the essence is given but many scientific papers suffer somewhat through condensation of the text.

It is believed that when a reader obtains this book for which thirteen dollars is exacted, he is entitled to get all the clinic has published in toto, so that he can be spared the trouble of wading through journals, which can be obtained only in libraries or by subscription, to see the originals.

It is hardly necessary to add that many papers are highly scientific in character and many again extremely useful to the practitioner in his every-day work.

The subjects, this year, are as varied as they have been in the past, so that, no matter what a practitioner happens to be interested in, he will find food for thought and stimulation to widen his professional horizon.

BICKHAM: "OPERATIVE SURGERY"

Operative Surgery. Covering the Operative Technic Involved in the Operations of General and Special Surgery. By Warren Stone Bickham, M. D., F. A. C. S. In six volumes. Volume IV. Philadelphia and London: W. B. Saunders Co. $10 per volume.

This volume deals with operations upon the pericardium, heart, the great intrathoracic vessels of the heart, esophagus, diaphragm, abdominal-pelvic walls, herniæ of the intestinal tract, peritoneum, omentum and mesentery, stomach, pancreas, spleen, liver, gallbladder and biliary ducts, with special operations upon the appendicocecal tract, etc.

From the above, it can be seen that this volume is devoted to surgical operations for diseases of the chest and abdomen, and constitutes, therefore, the most important volume of the system, because the operations discussed

are the ones most commonly performed by experts as well as casual operators.

Both will find in this volume a wealth of material ranging from the incisions through the abdomen to the rarest operations involving viscera which, up to recently, have been looked upon as a *noli me tangere*.

The method of presentation is maintained with logical sequence in this as in the preceding volumes, and all that has been said in the last three issues of this journal concerning the previously published volumes by the eminent New York surgeon, applies to this volume perhaps with still greater force because the illustrations are especially good and because the author has drawn from every available source to present an exhaustive treatise.

To convey a faint idea of the value of Bickham's work, it may be pointed out that Professor Hans Kehr, formerly of Halberstadt and lately of Berlin, Germany, generally conceded to be a pioneer in biliary surgery, has collected his philosophy and practical experiences with the surgery of the gall-bladder and biliary ducts in two large folios representing an exhaustive atlas and monograph in one. In this book, the entire range of surgery from the simple cholecystostomy to retroduodenal "sweeping" of the common duct is described and illustrated in a manner to impress even experienced surgeons with the fact that a master has spoken what promises to be the last word on a subject of importance for some time to come. Bickham, by skillful editing, manages to condense these two large volumes into one chapter.

This volume contains 842 pages and 772 illustrations, print and binding being of the same excellence as the other three volumes.

JORDAN: "CHRONIC INTESTINAL STASIS"

Chronic Intestinal Stasis. A Radiological Study. By Alfred C. Jordan. London: Oxford University Press. 1924.

This is a remarkable book on a highly interesting subject, and should not be confounded with atlases showing reproductions of x-ray plates of the gastrointestinal apparatus.

While the book is principally devoted to demonstrate the great value of radiography of the gastrointestinal tract, in all forms of intestinal stasis and toxemia, this is really only apparently so; for, here, we have a scholarly monograph discussing the clinical and therapeutic aspects of the affections under consideration, even though they are a bit sketchily drawn.

In 22 chapters, the author endeavors to cover such problems as colitis, diverticulitis, Lane's kink, ileal torsion, the undescended cecum, the appendix, the duodenum and duodenal ulcer, cardiospasm and others too numerous to be mentioned in detail.

The author is entirely under the influence of Sir William Arbuthnot Lane, and does not hesitate to follow his leadership in recommending resection of the entire colon in certain stubborn and incurable forms of intestinal stasis, but on the other hand it is pointed out that many surgical operations will fall into misuse provided the importance of stasis is appreciated by the general practitioner and treated early.

Of interest is the author's use of colloidal kaolin to check by absorption the toxemia originating in the gastrointestinal tract.

It is a common error of reviewers to praise books to the skies, so that when a really earnest and useful effort is presented the appetites have become blunted through the abuse of superlatives. We can therefore do no better than point out to the general practitioner, who wants to understand the many problems involved more clearly, who desires to judge the x-ray findings with intelligence and in general to become posted on the affections which today are uppermost in medical circles, that this book is going to prove tremendously useful. It contains only 230 pages from which must be deducted the many illustrations and the index, and can be read through in a few evenings superficially. After that, the perusal will be more systematic because the book is written fascinatingly like a novel. It is part of the world-famous Oxford Medical Publications.

Current New Literature

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